EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PREVENTION OF PRESSURE SORE AMONG CARE GIVERS OF IMMOBILIZED PATIENTS IN SELECTED HOSPITALS AT MADURAI DISTRICT

REG.NO: 301411853

A DISSERTATION SUBMITTED TO THE TAMILNADU DR.M.G.R. MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

APRIL 2016

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Internal Examiner

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External Examiner

CERTIFICATE

This is to certified that the dissertation entitled "**EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PREVENTION OF PRESSURE SORE AMONG CARE GIVERS OF IMMOBILIZED PATIENTS IN SELECTED HOSPITALS AT MADURAI DISTRICT**" is submitted to the faculty of Nursing, **The Tamilnadu Dr. M.G.R Medical University, Chennai by Miss.I.Mesiya Femina** in partial fulfillment of the requirement for the degree of Master of Science in Nursing. It is the bonafide work done by her and the conclusions are her own. It is further certified that this dissertation or any part thereof has not formed the basis for award of any degree, diploma or any title.

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LIST OF ABBREVIATIONS

S. No	Abbreviation	Expansion
1	NPUAP	National Pressure Ulcer Advisory Panel
2	HAPU	Hospital Acquired Pressure Ulcer
3	CAPU	Community Acquired Pressure Ulcer
4	RCT	Randomized Control Trial
5	ETF	Enteral Tube Feeding
6	ICSI	Institute for Clinical Systems Improvement
7	SD	Standard Deviation

ABSTRACT

The study on "**EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PREVENTION OF PRESSURE SORE AMONG CARE GIVERS OF IMMOBILIZED PATIENTS IN SELECTED HOSPITALS AT MADURAI DISTRICT"** was undertaken by Reg.No: 301411853 during the year 2015-2016 in partial fulfillment of the requirement for the degree of Master of science in Nursing at RASS Academy college of Nursing, Poovanthi, which is affiliated to The Tamilnadu Dr. M.G.R. Medical University, Chennai.

Objectives: To assess the level of knowledge regarding prevention of pressure sore among care givers of immobilized patients. To assess the effectiveness of video assisted teaching programme on knowledge regarding prevention of pressure sore among care givers of immobilized patients. To find out the association between the pretest level of knowledge with their selected demographic variables. **Conceptual frame work:** The study framework was based on Shuffle Beam's CIPP Programme Evaluation model, to find the effectiveness of video assisted teaching in improving knowledge regarding prevention of pressure sore**. Approach**: Evaluatory approach was adopted for this study. **Design:** Pre experimental one group pre test post test design was adopted for this study. **Setting:** The study was conducted in Neethi Arasu neurological hospital at Madurai district. **Sample size:** The sample size was 60 care givers**. Sampling technique:** The non probability purposive sampling technique was used. **Methods of data collection procedure:** Data were collected from the care givers to assess the level of knowledge by using semi structured questionnaire before video assisted teaching. Post test was conducted 1 week after administration of video assisted teaching, the level of knowledge was assessed. The collected data were tabulated and analyzed by descriptive and inferential statistics. **Results:** The result showed that, there was a significant difference in pretest and post test level of knowledge on prevention of pressure sore, the tabulated t-value (33.4) was greater than table value at 0.05, level of significance. It shows the video assisted teaching was effective in improving the knowledge. **Conclusion:** This study concludes that video assisted teaching was effective in improving the knowledge of care givers regarding prevention of pressure sore among immobilized patients.

CHAPTER I

INTRODUCTION

"From the bitterness of disease, man learns the sweetness of health"

(Catalan proverb)

The **human skin** is the outer covering of the body. In humans, it is the largest organ of the integumentary system. Skin supports the life of all other body parts and plays a role in maintaining the immune system. Skin occupies approximately 1.73 square meters or more than 18.5 square feet to cover our flesh and bones. In the skin 300 million cells are die every minute. The skin has multiple layers of ectodermic tissue and guards the underlying muscles, bones, ligaments and internal organs. Because it interfaces with the environment, skin plays a key immunity role in protecting the body against pathogens and excessive water loss. Its other functions are insulation, temperature regulation, sensation, synthesis of vitamin D, and the production of vitamin B and folates. Severely damaged skin will try to heal by forming scar tissue. This is often discolored and depigmented. (David Bank 2013).

Mobility is an individual's ability to move about freely. Mobility serves many purposes including expression of emotions, self defense, attaining basic needs, completing activities of daily living and performing recreational activities, besides assisting in maintaining the body's normal physiological activities. Immobility is a condition in which a patient is unable to move either due to his disease condition or as part of his treatment. (Sara Oomen 2010)

Butcher (2012), stated that immobility is widely documented in the literature as a cause of increased mortality and complications. Immobilized patients are at greater risk for skin breakdown and delayed wound healing. The musculoskeletal system is severely affected by immobility and prolonged bed rest. Prolonged bed rest and immobilization inevitably lead to complications. Such complications are much easier to prevent than to treat.

According to American Nursing Diagnosis Association, impaired physical mobility or immobility is defined as a state in which the individual is at risk of experiencing limitations of physical movement. Inactivity can lead to impairments in

range of motion secondary to Contractures, Skeletal articular lesions, Muscle wasting, Respiratory infection, Thrombophlebitis, Decubitus ulcer, Negative nitrogen and Calcium balance and a predisposition to chronic infection. Findings of study have shown that complications begin to develop within two days of immobilization if the patient does not exercise. (Charlotte Young 2008)

Approximately 50% of hospitalized individuals have impaired mobility. These individuals are most often found in Intensive care units, Trauma wards, Orthopedic Ward, Neuro ward and Geriatric wards of a hospital. Immobility affects all systems of the body leading to complications such as Pressure sore, Deep vein thrombosis (DVT), Hypostatic pneumonia, Constipation, Contracture, Urinary tract infection, Calculi and also Psycho physiological problems. (Susan W.Salmond, 2009)

A study was conducted about incidence of complications of immobility. Thirty six (72%) men and 14 (28%) women were participated. Mean age and duration of injury were 37.7 and 3.7 years respectively, complications were bladder problems (44%), bed sores (36%), gastrointestinal problems (56%), naturopathic pain (42%) and spasticity (60%) were the most common medical problem. There are 32% reported about the bed sores (S.Srivastava, 2008)

In February 2007 - The National Pressure Ulcer Advisory Panel (NPUAP) redefined the definition of a pressure ulcer. A pressure sore is defined as localized areas of tissues are compressed between a bony prominence and an external surface for a prolonged period of time and the stages of pressure ulcers, including the original 4 stages and adding 2 stages on deep tissue injury and unstageable pressure ulcers.

Lalan (2011) stated that Pressure ulcer has been a significant problem because it is occurred in every healthcare setting such as hospitals, nursing homes, and hospice and even at homes. More than one million individuals develop pressure ulcers each year.

Moreover Thomas (2006) added that about 57 – 60 % of all pressure ulcers occur within hospitals, and pressure ulcers recognized worldwide as one of the five most common causes of harm to patients, as well as a largely preventable patient safety problem and increasingly described as an indicator of the quality of care provided by health care organizations.

Shear and frictional forces pressure: Pressure is horizontal force that occurs when the skin and underlying subcutaneous tissues are pulled taunt and over stretched, causing tissue deformity, obstructing blood flow, and tissue necrosis. These areas include the spine, coccyx, hips, heels, and elbows and also depend on individual position. That means the effect of pressure and shear forces is higher in areas where soft tissue lies over bony prominence (Barns and Ward, 2004).

Pressure ulcer formation is a complex process that is still not clearly understood despite years of research. While the amount, duration and frequency of the applied pressure, the soft tissue's response to loading, and the role of shear and/or friction are crucial, individual patient characteristics need to be assessed as well. Intrinsic factors such as diagnosis, history of previous tissue breakdown or surgical repair, body build, posture, muscle atrophy, nutritional status as well as magnitude and distribution of interface pressures must be considered. Extrinsic factors are also important including number of hours sitting or lying in wheelchair or bed, types of activities performed while sitting, level of functional independence, type of wheelchair, cushion and bed surface used and the support surface microenvironment, environment (climate, continence, temperature), finances; family/caregiver support; living arrangements and ease of follow up (Reger et al. 2007).

It is very important to identify the groups at high-risk for pressure ulcers. The risk factors for it include age, moisture, and nutritional deficit. Moreover, pressure ulcer occurs exclusively in people with limited mobility, so it is a challenge to prevent the occurrence of pressure ulcer (Joyce, 2005). However, there are two theories describe the development of pressure ulcer. One of the theories is that the initial pathologic changes occur in the deep muscle and progress upwards, so called bottom-to-top sore formation. The other theory is that the sore formation first begins in the epidermis and upper dermis and then progresses down if the pressure is not relieved, known as top-to-bottom sore formation. (Elizabeth, 2009)

Some anatomic sites are more prone to develop pressure ulcers in affected individuals. The hip and buttock regions account for 67% of all pressure sores, with ischial tuberosity, trochanters, and sacral locations being the most common. The lower extremities account for an additional 25% of all pressure sores, with malleolar, heels, patellar, and pretibial locations being most common. The remaining 10% or so

of pressure sores may occur in any location that is exposed to long periods of uninterrupted pressure, the nose, chin, forehead, occipital region, chest, back, and elbow are the infrequent sites for pressure ulceration. (Randall and Braddom, 2010)

Pressure ulcers classification typically involves 4 stages of ulceration which designed to describe the depth of a pressure ulcer at the specific time of examination. Stage I represents intact skin with sign of impending ulceration that can be resolved within 24 hours of the removal of pressure. Stage II represents a partial-thickness loss of skin involving epidermis and possibly dermis. Stage III represents the loss of a full-thickness of skin with extension into subcutaneous tissue but not through the underlying fascia. Stage IV represents full thickness loss of skin and subcutaneous tissue and extension into muscle, bone, tendon, or joint capsule (Lowthian, 2005).

Fortunately, Pressure ulcers are preventable. The adage "Prevention is better than cure" holds good if proper care is given to the patients; who are at risk of developing pressure ulcers. Involvement of family caregivers is essential for optimal treatment of patients in ensuring treatment compliance, continuity of care, and social support. More than 6 million adults in the United States provide long-term, unpaid care to disabled persons. This service saves the health care system billions of dollars annually. In addition, providing care through caregivers for patients, support the patients as well as health care system where the hospital stays are short, physicians are dissatisfied and nurses are in short supply (Schulz et al., 2003).

The terms family caregiver and informal caregiver refer to an unpaid family member, friend, or neighbor who provides care to an individual having an acute or chronic condition and needs assistance to manage a variety of tasks, from simple one like bathing, dressing, and taking medications to tube feeding and ventilator care. Recent surveys estimate there are 44 million caregivers over the age of 18 years, approximately one in every five adults. (NAC 2009)

Crist.J.D. (2005) stated that Care givers play an important role in providing care to their client. They are the one who will be with the patient every time than physicians and nurses. Hence the care givers knowledge regarding general measures such as positioning, exercise, skin care, nutrition and support will enhance the quality of outcome and prevent complications. Care giving is a difficult job and many care

givers show psychological stress and declaim in physical and mental health especially cares giving continuous more than a year. If adequate knowledge is provided to care givers it will assist them to cope with the stressors and enhance the quality of life of themselves and their patients.

Family caregivers are essential partners in the delivery of complex health care services. Unlike professional caregivers such as physicians and nurses, informal caregivers, typically family members or friends, provide care to individuals with a variety of conditions (Bevans and Sternberg, 2012).

Involvement of family caregivers is essential for optimal treatment of patients in ensuring treatment compliance, continuity of care, and social support. It is an innovative idea to share caregivers as a part of health care system to play a major role in patients' care such as preventing pressure ulcer. Caregivers' readiness for taking on the care giving role is based on an individual's previous experience, and knowledge (Wu, 2009).

Tamam Mahmoud(2009) done an experimental study to determine the effectiveness of family training on prevention of pressure ulcers among bed-ridden patient after discharge from EL-Wafa Medical Rehabilitation Hospital, pretest – posttest design was used, 80 caregivers who have at least two weeks experience as caregivers of bedridden patients were selected conveniently. The pretest questionnaire was conducted in EL-Wafa medical rehabilitation hospital in Gaza strip, the educational package was administered in EL-Wafa medical rehabilitation hospital and the posttest questionnaire was completed in the caregivers' homes in Gaza Strip. The average score of bed-ridden caregivers training before training package administration was found to be 3.30 and after training package was given the average score was found to be 3.47. That means the training package was effective and easily applicable by the bed ridden patients caregivers at their homes. The study concluded that educational package was effective in the prevention of pressure ulcers.

Nesbitt (2004) had conducted a study to evaluate the outcomes of prevention education and skin integrity interventions on the incidence of pressure ulcer. These results suggested that education and implementation of appropriate skin care products

and procedures and pressure ulcer prevention protocols may reduce the incidence of hospital acquired pressure ulcer.

More recently, the NPUAP review for the years 2000–2011 performed by Cuddigan identified studies on pressure ulcer rates with being from the USA. Although rates generally were not as high as seen in some of the earlier studies, pressure ulcers remain a significant problem. A study performed in a neurological intensive care unit reported a 12.4 % incidence rate for stage 2 or greater pressure ulcers. The most comprehensive data comes from the International Pressure Ulcer Prevalence surveys which has been collecting data using a standardized methodology for over 20 years and typically includes over 90,000 acute care patients in each of its surveys.

According to the Pressure Ulcer Prediction and Prevention Guidelines list several other recommendations related to maintaining tissue tolerance to pressure. Among these recommendations are providing knowledge regarding the use of mild cleansing agents to minimize dryness and treating dry skin with moisturizers. Healthcare agencies that implement educational programs focused on skin care protocols to prevent pressure ulcers and intervene as early as possible have been able to demonstrate reductions in the prevalence and incidence of pressure ulcers. Impaired skin integrity is a serious and potentially devastating problem in ill or debilitated patients. Therefore providing information about skin care to maintain skin integrity has great benefit. (Langemo.et.all. 2002)

Burner (2009) stated that Nursing interventions such as change in body position every 2 to 4 hours, use of blanket rolls, hand rolls, pillows, and cotton rings play an important role in the prevention of pressure ulcers. These strategies were found to be associated with less frequent development of pressure ulcers in pediatric intensive care. Pillows, cotton rings and hand rolls were used as comfort measures and repositioning was done every two hourly. The caregivers were taught regarding use of these measures. There was a significant decrease in the number of bed ridden children falling under the 'very high risk' and 'high risk' category of developing pressure ulcer as per the Braden scale. None of the child developed pressure ulcer during their hospital stay.

Horsley (2011) said that pillow bridging i.e. supporting of bony prominences of patient above the bed surface through the use of pillows was a simple and effective method of prevention of pressure ulcer. The pillows are of low cost, acceptable and require no training and can be easily used by the caregiver.

On similar lines Chang CH et al also conducted a program for lowering the incidence of pressure sores in neurosurgical patients. Cotton rolls were used to pad the pressure sites in this programme. It was found that the incidence of pressure sore in neurosurgical patients reduced from 9.5% to 7%21.

Another study conducted by Joseph , 2010, who examined the effectiveness of application of water gloves on pressure areas in management of pressure ulcer among bed ridden patients, necessitated on the role of knowledge regarding repositioning bedridden patients as one of the most common pressure ulcer prevention methods, and is considered a standard of care.

El-Daharja, (2009) reported in his study that knowledge regarding quality of food. The food contains meat, veggies, fruits and corns have a big role in prevention and healing of pressure ulcers by a percent of 85.5%. Additionally, Anderson et al., 2006 found a relationship between eating difficulties (dysphasia), malnutrition, and inability to eat without assistance. Those items can lead to development of Pressure ulcers among brain stroke patients who were admitted to rehabilitation institutions. Also, Petrson, 2009 reported that adequate nutrition and hydrations are critical to the prevention and management of pressure ulcers.

Elizabeth, (2009) In order to establish good preventive strategy of pressure sore there are importance for upgrade major caregivers' pressure ulcer care knowledge and self efficacy. Clinical nursing staff should provide them the care knowledge and skills so that bedridden patients can get high-quality care after returning home.

Need for the study

"Diseases can rarely be eliminated through early diagnosis or good treatment, but prevention can eliminate disease"

Denis Burkitt

Prolonged immobilization plays an important role in negative outcomes of critically ill patients. Bed rest reduces oxygen consumption and slows metabolism and is thus commonly recommended in critically ill adults to conserve energy. Although this effect may be desirable, the adverse effects of immobility far outweigh the positives. In healthy older adults, only 10 days of bed rest resulted in a 3.3 pound loss of lean body mass and a 15% loss of quadriceps strengthAfter one week of bed rest, muscle strength may decrease as much as 20%, with an additional 20% loss of remaining strength each subsequent week (Perme & Chandrashekar, 2009).

Pressure ulcer almost exclusively in people with limited mobility, so it is a challenge to prevent the occurrence of pressure sore. Pressure sores are common condition among patients hospitalized in acute and chronic care facilities. Prevention of pressure ulcer is always better than treating the complications associated with it, with higher expenses. (Perry. Potter (2009).

Braden.J.Wilhelmi(2010) reported incidence of pressure ulcer in acute care facilities ranges from 2.7% to 29.5% and approximately 5-8% annually and 25-28% of these patients develop a pressure sore at some time. The prevalence in acute care setting ranges from 3.5% to 29.5% and 2.4% to 23% in nursing homes and about 20% at home in people older than 65. Studies have suggested that, at any given time, 3-10% of hospitalized persons have pressure sores and 2.7% develop new pressure sores. The treatment of pressure sore in this patients population represent a financial challenge, with an average cost per admission of the patient with the pressure sore of $78,000 at one hospital.

ICSI (Institute for Clinical Systems Improvement) 2014 gave health care protocol on pressure ulcer prevention and treatment protocol, a literature review of systematic reviews and randomized control trails from July 2012 thru January 2013 was completed according to the 2014 Minnesota adverse events reports the number of

reported pressure ulcer decreased for the second consecutive year falling from 130 to 95.

The NDUAP (2012) reports that the incidence of pressure sores also ranges due to the type of hospital setting. Pressure sore incident rates are 0.4 percent to 38 percent within hospitals, while they are only 2.2 percent to 24 percent in skilled nursing facilities. Pressure sores can also develop within a short span of time, so it is important that staff workers be aware of the medical condition of patients at all times. The NDUAP report has found that pressure sores can develop in two to six hours. It is necessary to quickly identify at-risk patients so that appropriate treatment can be provided to them as soon as possible.

Total number of cases hospitalized with the principal diagnosis PU increased from 9,941 in 2005 to 12,581 in 2011 (increase of 26.5 %). Within this population the rate of PU grade 4 increased disproportionally from 46 % in 2005 to 59 % in 2001 Total number of cases hospitalized for other diseases but having the additional diagnosis PU increased from 239,760 in 2005 to 412,029 in 2011 (increase of 71,8 %). Within this population the rate of PU grade 2 was the most frequent grade (Figure 2). Its rate increased disproportionally from 39 % in 2005 to 47 % in 2011. (Heidi Heinhold, 2014)

In 2008 a total of 16,071,846 cases were treated as in-patients in German hospitals. Thus 0.062 % (9,941) was referred with PU as principal diagnosis and 1.5 % (239,760) had at least one additional diagnosis PU. In 2011 a total of 18.691.076 cases were treated as full in time patients in German hospitals. The rates of cases with PU as principal diagnosis were 0.067 % (12,581) and that of additional diagnosis 2.2 % (412,029). (Andreas, 2008)

International Pressure Ulcer Prevalence survey, prevalence rates in 2009 on various acute care medical and surgical units were in the 8–14 % range with the facility acquired rate in the range of 3–5 %. Another large study that has collected data over several years at multiple sites reported a prevalence rate of 16.0 % among nearly 32,000 patients in 2004 .The incidence rate in this study was described as 7 %.

Pressure ulcers affect an estimated 3 million adults in the United States. Estimates of the incidence of pressure ulcers range from 0.4 to 38% in acute care hospitals, 2 to 24% in long-term care nursing facilities, and 0 to 17% in the home caresetting. The United States had an overall prevalence of pressure ulcers across these three settings of 13.5 % in 2008 and 12.3 % in 2009 while pressure ulcers are a top priority for the medical field and articles are numerous the data quoted from 2009 is the most current published. (Agency for Healthcare Reserch and Quality, 2012)

Barrois, B., et al, 2008 had conducted a cross sectional study on national prevalence study of pressure ulcers in French hospital inpatients. National pressure ulcer advisory panel (NPUAP) staging was used and data were collected using two self-administered questionnaires. Results showed that a total of 37307 inpatients in 1170 wards in 1149 hospitals were assessed representing a response rate of 93.5%. Their mean age was 72.3 years and 62% were females. In all 3314(64%) patients had at least one pressure ulcer. The prevalence rate of 8.9% and a total of 4991 pressure ulcers were recorded. They suggested that studies should be encouraged in all health care settings as a means of improving the care provided.

A cross sectional study was conducted to ascertain the quality and pattern of home based long term care for the adult bedridden patient in Chandigarh, India .The result showed that the common complications were pressure ulcers 55% and Urinary tract infections (39%). The researchers concluded that bed ridden patients have high rate of medical complications and that there is a need for formal training for care givers. (Chu Lin P, 2005)

Most often, pressure ulcers do not cause death; rather the pressure ulcer develops after a sequential decline in health status. Thus, the development of pressure ulcers can be a predictor of mortality .In the fourth annual Health Grades Patient Safety in American Hospitals Study, which reviewed records from about 5,000 hospitals from 2003 to 2005; pressure ulcers had one of the highest occurrence rates. In US acute care facilities alone, an estimated 2.5 million pressure ulcers are treated each year.

Vandenkerkh et.al.,(2011) A Canadian study based on annual census conducted in an acute care facility in Ontario between 1994 and 2008 including 12,787 individuals who were inpatients during a 1-day reported sacrum (27 %), heel (13 %), ankle (12 %), and ischial tuberosity (10 %) as the most common PU sites.

The bed ridden patient faces various problems which include depression, nervousness, poor hygiene and bed sore. If there is a scenario that the ward nurse has to take care of more than five bedridden patients then the burden over the nurse's increase and she may miss some needs of all patients. The family care givers knowledge and practice regarding management of immobilized patient will enhance the quality of life of patient.

Several studies state that, long periods of bed rest have psychological effect on both patient and family members. At least 2- 3 immediate family members' have to go through tremendous amount of emotional ,physical and psychological trauma in the absence of knowledge or training to look after their immobilized patients. Comprehensive educational program for patient and their family of care givers should begin throughout care. (Smelter.S C. 2004)

The investigators out of her own experience during her practice in the clinical setting found that many time, care givers who are with the patients not having enough knowledge about the pressure ulcers and its prevention. So the investigator felt that education about pressure ulcer may increase the knowledge and practice towards the prevention of pressure ulcer.

Statement of the problem

"Effectiveness of video assisted teaching programme on knowledge regarding prevention of pressure sore among care givers of immobilized patients in selected hospitals, at Madurai District".

Objectives

- To assess the level of knowledge regarding prevention of pressure sore among care givers of immobilized patients.
- To assess the effectiveness of video assisted teaching programme on knowledge regarding prevention of pressure sore among care givers of immobilized patients.

- To find out the association between the pretest level of knowledge and their selected demographic variables.

Hypotheses:

- **H_1:** There is a significant difference between pretest and posttest level of knowledge regarding prevention of pressure sore among care givers of immobilized patients.
- **H_2:** There is a significant association between pretest level of knowledge and their selected demographic variables of care givers of immobilized patients.

Operational definitions

Effectiveness: In this study, it refers to the extent to which the video assisted teaching will achieve desired effect to gaining knowledge regarding prevention of pressure sore in immobilized patients in terms of difference between pre test and post test knowledge measured by semi structured questionnaire.

Video assisted teaching programme: Refers to systematically organized information prepared by the researcher in the form of motion picture with audio regarding prevention of pressure sore measures which was played through LCD.

Knowledge: In this study, it refers to the information known and acquired regarding prevention of pressure sore which was measured by semi structured questionnaire.

Prevention: It refers to the measures adopted by the care givers to reduce the occurrence of pressure ulcer.

Pressure sore: It is a localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear.

Immobilized: In this study, immobilized patient refers to individuals who are bedridden and admitted for the management of neurological problem.

Care givers: In this study, care givers refer to family members or frients who provides care to the immobilized patient.

Limitations:

The limitations of the study were

- ❖ The study focused only on care givers of immobilized patients.
- ❖ The study period was limited to four weeks only.
- ❖ The sample size is limited to 60 samples.

Projected outcome

The study will reveal the importance of video assisted teaching in improving the knowledge regarding prevention of pressure sore among care givers of immobilized patients.

Conceptual framework

The present study aims at evaluating the effectiveness of video assisted teaching programme on knowledge regarding prevention of pressure sore among care givers of immobilized patients. The framework of the present study based on,

Shuffle Beam's CIPP Programme Evaluation model, 1960

CIPP is an acronym that stands for Context, Input, Process and Product.

CONTEXT:

It provides information for the development and evaluation of mission, vision, values, goals and objectives.

In this study context consist of socio demographic variables of the care givers such as gender, age, religion, marital status, relation with the patient, education, monthly income and family members in the health field.

INPUT:

It helps to assess different teaching and learning approaches. It includes designing of intervention programme.

In this study input is the video assisted teaching prepared on the basis of learning needs.

PROCESS:

Process evaluation assesses the implementation of plans.

In this study process evaluation refers to evaluating the pre test and post test.

PRODUCT:

It is the evaluation of the outcome of the programme.

In this study product is the improved responses of the care givers followed by the implementation of video assisted teaching programme.

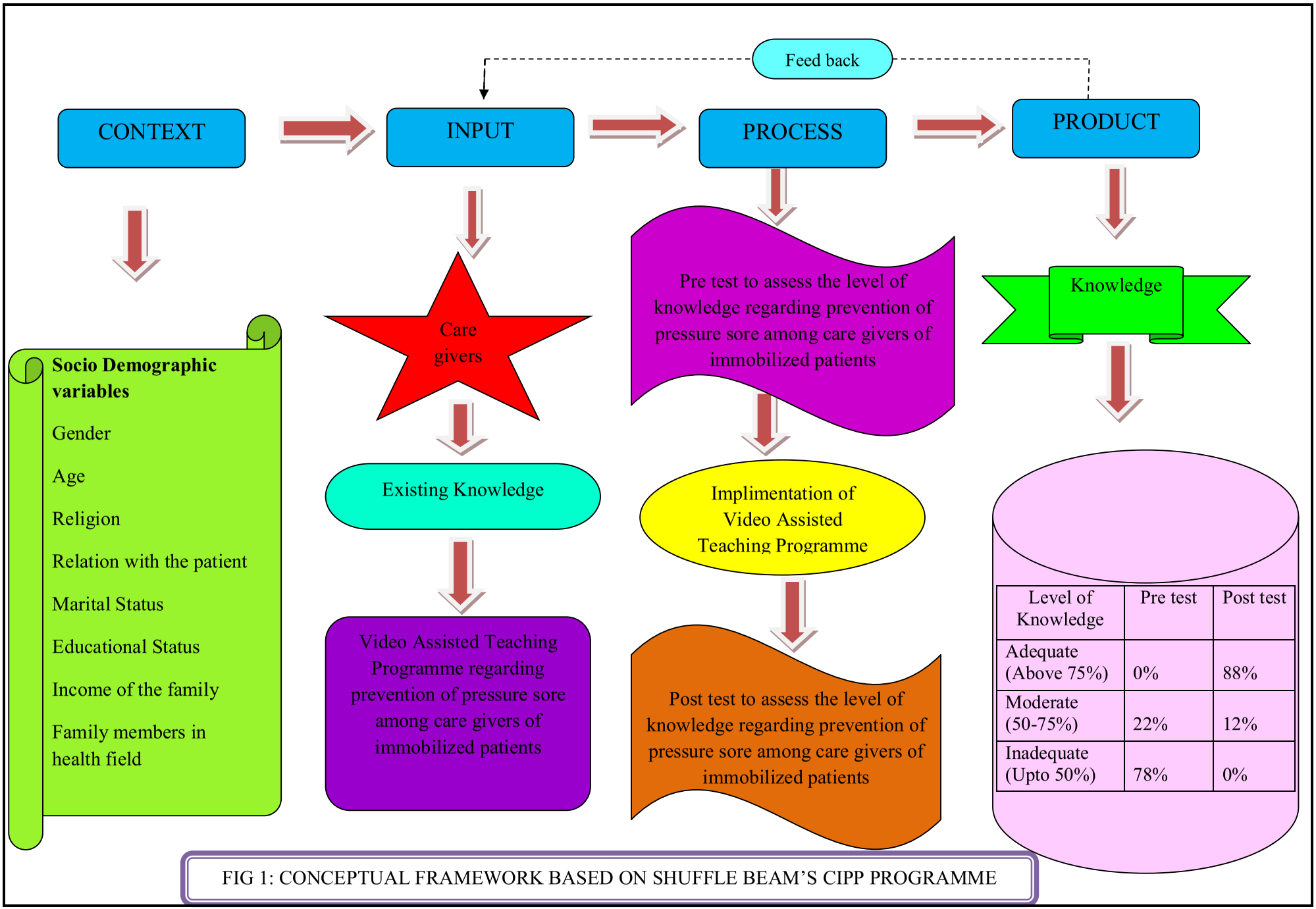

FIG 1: CONCEPTUAL FRAMEWORK BASED ON SHUFFLE BEAM'S CIPP PROGRAMME

CHAPTER II

REVIEW OF LITRATURE

According to B.T.Basavanthappa (1998) review of literature is a key step in the research process. It refers to an extensive and systematic examination of publications relevant to research project. The extensive review was made to strengthen the present study in order to lay down the foundation which helps us to reveal the prevailing situation of the similar studies in different areas. The related literature of this study was presented in the following sections:

- **Literature related to pressure sore**
- **Literature related to knowledge and practice of pressure sore**
- **Literature related to effect of teaching methods on knowledge regarding prevention of pressure sore**
- **Literature related to video assisted teaching on knowledge regarding prevention of pressure sore**

1.Literature related to pressure sore

Manjeet Singh Dhanda (2015) had done a prospective study on prevalence and clinical evaluation of Pressure Ulcers from neurological wards of a tertiary care teaching hospital in Hariyana, India, from July 2009 to August 2014 among 228 patients seeking care. Braden scale was used for predicting pressure ulcers in the study subjects. All patients showing the potentiality of developing clinical signs of bed sores selected and put on the study list. Patients aged and the worst pressure sores were excluded from the study. Out of total 228 study subjects, 61 subjects developed pressure ulcers giving a p value of 26.75%. According to Braden Scale, 16.39% of patients were at high risk for developing the pressure ulcers.

Ulrika Kallman (2015), has conducted a evaluatory study on repositioning in pressure ulcer prevention in Netherland, 62 elderly immobile patients were selected as conveniently and movements were done either by nursing staff or by care givers in the

family, moving sense monitoring system used that compared with register with nursing records, the study concluded that the interface pressure was significantly higher in 0 degree supine and 90 degree lateral position, compared to 30 degree supine tilt and 30 degree lateral position shows no difference. The study concluded that immobilepatients are particularly vulnerable to pressure sore, these patients need to be repositioned more frequently.

Sukhpal Kaur,et al., (2015), had conducted an exploratory study in Colambia, total of 2408 patients from various departments were enrolled in the study, who were assessed for the development of bedsore every alternate day from the day of admission till their discharge or death. Out of them, 6 per cent (141) developed bedsore. Further, 34.8% patients were at 'very high risk', 38.3% were at 'high risk', 15%t was at 'moderate risk' and 23 per cent were at 'risk' of developing bedsore. It has highlighted that the incidence of bedsore is highest among those admitted to Intensive Care Units of the institute and those shifted from the Emergency.

Ling Fu Shaw.et.al., (2014), done a cohort study on incidence and associated risk factors for pressure ulcers amongst the population of surgical patients, total of 297 patients admitted to a teaching hospital for a surgical operation Taipei, were taken. The Braden scale, pressure ulcers record sheet, and perioperative patient outcomes free from signs and symptoms of injury related to positioning and related nursing interventions and activities were collected the incidence of immediate and thirty-minute-later pressure ulcers is 9.8% (29/297) and 5.1% (15/297), respectively, admission Braden score, and number of nursing intervention after adjustment for confounding factors.Study conclude that admission of Braden score and number of nursing intervention are well-established to protected from pressure ulcers development.

SalamJibanlataDevi,et.al.,(2013), done an evaluatory study on effectiveness of comfort measures and repositioning in prevent pressure ulcers in hospitalized bedridden children. Using purposive sampling technique, 40 bedridden children were enrolled in the study. Protocol on the use of comfort measures and repositioning technique were developed. Daily assessment sheet and repositioning schedule proformas were used to record the findings related to development of pressure ulcer. The intervention and daily

assessment were continued till the patient got discharged from the hospital or for 14 consecutive days after identifying the children who are at risk of developing pressure ulcer. On the day of enrollment 41.6% were on 'high risk' category and 20.9% were on 'Very high risk' category of developing pressure ulcer as per the Braden scale. On the 14th day of intervention the significant decrease was found in the number of bed ridden children falling under the 'very high risk' and 'high risk' category of developing pressure ulcer ($x^2 = 72.1$, $p<0.00$).None of the child developed pressure ulcer during their hospital stay.

Somnath Saha,et.al.,(2013), done a qualitative analytical study on pressure ulcer treatment strategies, by comparing the effectiveness and safety of pressure ulcer treatment strategies, study reviewed 7274 titles and 1836 full length articles and 174 trial and observational studies, they found that moderate strength evidence that some interventions were associated with wound improvement, including the use of air filled beds, protein containing nutritional supplements, radiant heat dressing.

Nahla Tayyib,et.al.,(2013) done a literature review of patient risk factors and risk assessment scales on Critically ill patients are at high risk for pressure ulcer in adult intensive care units. A literature search from 2000 to 2012 using the CINHAL, Cochrane Library, EBSCOHost, Medline (via EBSCOHost), PubMed, ProQuest and Google Scholar databases was conducted. Nineteen articles were included in this review; 8 studies addressing Pressure Ulcer risk factors, 8 studies addressing risk assessment scales and three studies overlapping both. Results from the studies reviewed identified 28 intrinsic and extrinsic risk factors which may lead to pressure ulcer development and no existing risk assessment scales are valid for identification high risk critically ill patient, with the majority of scales potentially over-predicting patients at risk for Pressure Ulcer development.

Brindle, (2012) had conducted an experimental study on the impact of the preventative dressing on pressure ulcer, University Medical Center in Richmond, Virginia. Patients were assigned in 2 groups, standard care comparison group (n=39) and the intervention group (n=56) that received the application of the silicone foam border dressing. Staff members were provided education prior to the start of the study on

inclusion/exclusion criteria, dressing application, standard interventions for prevention, and data collection procedures. Patients that received the standard care had a zinc-based skin protecting applied twice a day along with other standard daily skin interventions and a low air loss surface applied to the bed. The intervention group had the preventative dressing changed every 3 days throughout the length of stay. Eight of the PUs occurred in 4 out of 35 patients (11.7%) in the control group, and one PU in the intervention group (2%) that was a deep tissue injury. The study concluded that dressing and standard daily skin interventions were effective in pressure ulcer prevention.

Aljezawi.Ma'en(2011), done a retrospective study in Egipt, to explore effective interventions and associated risk factors in the areas of pressure ulcer, convenient sampling technique was used to select patients, 2 group of patients were selected, 20 in each group ,first group developed pressure ulcer during hospitalization, the other did not, comparison of each patient from pressure ulcer groups was matched with another patient from non pressure ulcer group, from a Water low sub score, finding shows repositioning every 2 hours and helping patients in sit regularly in chair ($r=0.24,0.06$ respectively $p<0.05$) and related to physical activity the mobility reduce the pressure ulcer formation($r=7.69$).

Lahmann,et.al.,(2010), done survey on impact of prevention structures and processes on pressure ulcer prevalence in nursing homes and acute care hospitals. A total of 7377 residence in nursing homes and 28108 patients in acute care hospitals in Germany participated in annual point prevalence surveys. The result was samples within the arranged groups showed no clinically relevant demographic differences. Nosocomial prevalence rates in hospitals dropped from 26.3% in the first year to 11.3% in the last year (nursing homes from 13.7% to 6.4%). The use of pressure ulcer related structures remarkably increased during each repetition to more than 90%.

Whittington (2009) performed a descriptive study on pressure ulcer prevalence and incidence of acute care hospitals in Egypt, 116 acute care facilities from 34 states participated and the sample of 17560 patients in hospital based medical, surgical or intensive care unit. The average length of stay for the participating facilities was 5 days. The result was pressure ulcer in 7% of the subject (n=383) 90% were stage I or II

pressure ulcer and 73% occurred in patients older than 65 years. The most sites based on both prevalence and incidence measurements were sacrum and coccyx at 26% and 31% respectively.

Bansal (2009) done a descriptive study to determine the incidence of pressure ulcer among immobilized patients at orthopedic patients in Tehran, Iran. 330 patients with no pressure ulcer at the time of admission, no movement due to therapeutic interventions or movement only with assisting devices were selected through convenience sampling at orthopedic wards. The findings of the study showed that 46 patients (13.9%) developed pressure ulcer of which 76.1%, 21.7% and 2.2% were at stages 1, 2 and 3 respectively. The most common locations of the ulcers were in sacrum (34%), ischium (34.8%), heels (17.4%) and both sacrum as well as heels (10.9%). The related factors included medical diagnosis, type of therapy, decreased activity and immobility.

Jaana perffunen (2009) , conducted a systematic literature review on prevention of pressure ulcer, used 16 studies the time of publication of studies was 10 years (1999-2009) material was collected in 3 languages , the study shows that the age of risk assessment scales (Braden , cotton or water low) within 24 hours from admission repositioning an immobile patient every 2 hours ,avoidance of unnecessary friction of the skin ,usage of appropriate support surface , like mattresses , overlays ,sheep skins, bad and other devices and taking care of patients nutrition.

Emad.T.Ahmad, (2008) had conducted an experimental study on high voltage pulsed Galvanic stimulation to find effect of treatment duration healing of chronic pressure ulcers. Sixty volunteers suffering from chronic pressure and were divided in to four groups (3 treatment groups and 1 Control group) patients in treatment group (G_1 G_2 G_3) received HUPC for 45, 60 and 120 minutes and control groups received HUPC for 45 minutes for 7 days. It was found that reduction in wound surface area in G2 (6 minute) and G3 (120 minute) than G1 and control groups (45 minutes). There were 170 different between G2 and G3. The application of HUPC for 60 – 120 minutes for 7 days in a optimal duration in enhancing chronic dermal ulcer healing

Landi et al (2008), done a descriptive longitudinal study on high risk of pressure ulcer after the post acute rehabilitation period from 2006 to 2008 number of subjects who participated in the study were 1100 and was selected randomly from 22 Italian home health agencies. Instructional questionnaire was distributed to know incidence and prevalence of pressure ulcer among brain stroke patients the result showed that 30% of brain stroke patients have pressure ulcer.

Eman S.M. Shahin (2008) conducted a longitudinal study to assess pressure ulcer incidence in intensive care patients, Korea, 121 patients were involved in the study. Each patient was assessed twice; first, upon admission and second upon discharge or death, or after 2 weeks if the patient was still in intensive care. This study revealed a total incidence of 3.3% (4.5% in nephrological patients and 2.9% in surgical patients). Sixteen patients with a total of 21 pressure ulcers were admitted to the intensive care units. During the patients' stay at the intensive care units 6 pressure ulcers developed newly and 5 pressure ulcers healed. The mean of the APACHE (Acute Physiology and Chronic Health Evaluation) II score of patients with new pressure ulcers (16.6) were higher than in patients without new pressure ulcers (11.5). Pressure ulcer incidence is low in this study compared to other studies

Ashton, J (2008), had done a qualitative study on the impact of pressure sores on patients' quality of life in University of Salford. A qualitative approach in the style of phenomenology was used to explore and describe the, experiences of people who had endured an episode of an open pressure ulcer. A purposeful sample of fifteen participants (10 females and 5 males) was selected, age range: 45-89 years. All the 15 patients recruited, had a new episode of either a sacral pressure ulcer, or heel ulceration, which was graded three to four using the European Pressure Ulcer Advisory Panel grading system, data collection done by interview, the study concluded that most of the participants (70%) had a very good understanding of how a pressure ulcer developed and 80% of them expressed feelings of anger and frustration at the impact of developing a pressure ulcer had on their lives.

Stephen and hyanes (2008) performed a experimental and comparative study on smoking and development of pressure sores due to arteriosclerosis of blood vessels in two comparison groups in general hospital in Ohayo and sample was 80 clients who were selected randomly. The result showed that 20% of the sample developed pressure ulcers due to smoking because of the skin receive insufficient blood supply and ischemic may developed.

Bergstrom (2008), done a descriptive study on identified that the risk factors that are associated with the development of pressure ulcers in Florida, 110 bedridden patients were selected randomly and observed for 3 days with pressure ulcer risk assessment sheet, the study shows that the presence of edema, increasing length of stay, increased dody weight and not turning the patient are in high risk of pressure sore development. The result showed that 5% of the patients who have edema have pressure ulcer and 15% of the participants who stayed in bed wit out mobility more than 8hrs has pressure ulcer.

Bourdel & Marchasson (2007) performed an exprimental study on the effect of nutritional supplementation on dietary intake on pressure ulcer development in critically ill older patients in Colombia. The multi-center trial involved 19 wards stratified according to specialty and recruitment for critically ill older patients; 9 wards were randomly selected for nutritional intervention (nutritional intervention group), consisting of the daily distribution of two oral supplements, with each supplement contains 200 kcal, for 15 days. Pressure ulcer incidence was prospectively recorded for grades I (erythema), II (superficial broken skin), and III (subcutaneous lesion) for 15 days. Nutritional intake was monitored by using estimates in units of quarters validated by comparison with weight measurement. There were 672 subjects older than 65 years, and 295 were in the nutritional intervention group versus 377 in the control group. This intervention was associated with a decreased risk of pressure ulcer incidence.

Gunningbergh.L(2007) done a experimental study on occurrence of pressure ulcer among hospitalized patients, German,124 patients were selected randomly, half in control group and half in experimental group, pressure sore assessment tool used to collect data, result shows that approximately 20% of the patients had pressure ulcer that is in

experimental group 20.4% and in control group 18.8%, at discharge the rate has increased to almost 40% that is in experimental group 39.6% and in control group 36.0%, study found that 25 patient developed pressure ulcer during the hospital stay, the incidence calculated to 55%, the majority of the pressure ulcer were classified as grades I and II and the most common location were in sacrum, buttocks and heels.

2. **Literature related to knowledge and practice of pressure sore**

Nuru Nurhusien (2015), had conducted a institutional based cross sectional survey on knowledge and practice of nurses towards prevention of pressure ulcer and associated factors in Gondar University, Ethiopia, the survey conducted from march to april 2014 among 248 nurses, a pre test and self administered questionnaire was used for data collection, study shows nearly half of the nurses had (54.5%) good knowledge, similarly 48.4% of them had good practice on prevention of pressure ulcer. The study concluded that knowledge and practice of the nurses regarding prevention of pressure ulcer was found to be adequate.

Fathia.A.Marsal,et.all.,(2014), performed a descriptive study to determine the care givers knowledge and practice regarding preventing of immobilization complication in El.demeralsh hospital, 30 care giver of immobilized patients from orthopedic ward was selected by convenient method, data collected through semi structured interview questionnaire, the study shows that nearly 50% of the care givers knowledge was unsatisfactory regarding pressure ulcer and in practice majority(80%) of them had poor practice in prevention of pressure sore.

Poudyal.S.et.all., (2014), conducted a descriptive and cross sectional study on knowledge on prevention of complication related to immobility among care givers of orthopedic patients, in Nepal, 133 care givers are selected randomly and they were interviewed by using semi structured interview schedule, the result shows that mean knowledge score of the respondents on bed sore, is 6.69 and SD 3.06, the mean sore range 0-13 and the maximum possible sore is 17. The study concludes that care givers has poor knowledge regarding preventive measures.

Ivan Mwebaza (2014), done a descriptive and cross sectional study on knowledge and practice regarding, prevention and management of pressure ulcers at teaching hospitals in Uganda, 56 register nurses were selected conveniently , a composite self administered questionnaire and an observational checklist were utilized, the majority of participants are females(91.9%), the age range was 21-60 years and less than half were (44%) between 21-30 years, participants were mostly diploma graduates(83.9%) with professional experience of 1-6 years, the study shows that the nurses had limited knowledge (>40%) with mean low score of (13.2 out of 40) about critical parameters of pressure ulcer prevention.

Taha Amal Sad (2014), done a descriptive study on nurses knowledge and practice related to pressure ulcer in Benha university Eygpt , 60 nurses were selected purposively, data collection done with knowledge questionnaire sheet and observation checklist the findings showed that more than two thirds (69%) of the studied sample had unsatisfactory knowledge level and two thirds(72%) of the studied sample had unsatisfactory practice level. The nurses' knowledge was correlated with their practice ($r = 0.7846$, $p < 0.001$) regarding pressure ulcer, it shows that nonsignificant. Findings of the study suggest that nurses need to increase knowledge on pressure ulcer prevention and management in order to improve nursing practice in this.

Valentina Simonetti (2014), done a study to assess both knowledge and attitudes among nursing students on Pressure Ulcer Prevention Evidence-Based Guidelines. A multicenter cross-sectional survey was carried out from December 2012 to August 2013. The study was carried out in seven Italian nursing schools, and involved a convenience sample of nursing students ($n = 742$), data were collected using two validated questionnaires to assess students' knowledge and attitudes on pressure ulcer prevention, the overall Knowledge and Attitude scores were 51.1% (13.3/26) and 76.7% (39.9/52), respectively, the study found a weak correlation between total Knowledge scores and total Attitude scores ($rho = 0.13$, $p > 0.001$), study concluded that Nursing students' knowledge on pressure ulcer prevention was relatively low.

MargarethYuri (2014) performed a descriptive study to analyze knowledge on pressure ulcer prevention among nursing team members working in direct care to adult and elderly patients at a university hospital, Brasil. Participants were selected Conveniently 386 professionals, of whom 64.8% were nursing auxiliaries/technicians and 35.2% baccalaureate nurses (BSN). Data were collected through a validated questionnaire. The mean percentage of correct answers on the knowledge test was 79.4% (SD=8.3%) for nurses and 73.6% (SD=9.8%) for nursing auxiliaries/technicians. Both professional categories display knowledge deficits in some areas related to the theme. The identification of deficient areas can guide strategic planning with a view to the dissemination and adoption of prevention measures by the team.

Gail Amy (2013) had done a descriptive correlations study regarding the effect of nurses attitudes toward pressure ulcer risk and care, national level hospital selected in US, 65 RM nurses were selected purposively from each hospital, attitude scale used , with Likert 5 point scale to measure pressure ulcer attitude. 75% of staff nurses felt that all patients are at risk of developing a pressure ulcer that most Bed Sores can be avoided (76%) and nurses should concern emselves with Bed Sores prevention (99%). Pressure ucer prevention was seen as more important than pressure ulcer treatment (92%) and regular (84%) and continuous assessment (94%) was considered an accurate method for obtaining a picture of patients' risk status. Result shows nurse scored lower (>40%) in questions pertaining to turning and repositioning, weight distribution and various Stages of pressure ulcer.

Onigbinde A. Teslim.et.al.,(*2012)* done a evaluatory study on risk of developing pressure sore and to determine the preventive techniques adopted by Health Care Professionals in Nigeria hospitals, questionnaire was used for this study and it was divided into two parts with structured questionnaire and Braden Scale, three hundred and eighteen (318) in-patients were purposively selected, the result of the study showed that, in-patients in the selected hospitals are "at risk" of developing pressure ulcers. Also, General Practitioners (50.47%) and nursing staff (49.52%) mostly prescribed at least one of the preventive techniques while few (31.23%) reported that physiotherapists prescribed at least one of the preventive techniques. However, a considerable number of

the patients (35.02%) were never informed by any of the health staff on preventive measures, the study concluded that In-patients are “at risk” of developing pressure ulcers and that health care providers are not prescribing adequate preventive techniques to prevent pressure ulcers.

Shriful Islam (2010), descriptive and correlational study to examine the nurse’s knowledge, attitude and practice regarding pressure ulcer prevention in Bangladesh. 91 nurses were selected by convenient method, data were collected through semi structured questionnaire, study showed that nurses had very low level knowledge (m=57.79%, SD=6.61), neutral level of attitude (m=76.55%, SD=9.2) and moderate level of practice (m=78.59%, SD=11.0), there was a positive correlation between nurses attitude and practice ($r=0.34, p<0.1$) and no significant correlation found between knowledge and attitude ($r=0.14, p<0.05$).

Gallant, (2010), had conducted a descriptive correlation study on relationships between knowledge of pressure ulcers and nurses attitudes in Quebec, Canada, 620 eligible nurses were selected conveniently. Authorization to review patient files was obtained to review the treatment administered. Factors such as the work environment and the nurse’s perception of his/her own knowledge was considered in the results. The maximum score to measure the level of nurses’ knowledge was 45. In this particular study, the average score was 33.98. The correlation concluded that pressure ulcer knowledge was insufficient.

Kwiczala (2009) had conducted a descriptive and cross sectional study to evaluate the knowledge of pressure ulcer prevention in families of patient at risk, in Jeniva .The duration of the study was four months and 62 care givers where selected purposively and filled out the questionnaire enquiring about pressure ulcer prevention and treatment and the results shows that caregivers have insufficient knowledge (48%) with mean score of (1.04) and most of the care givers that is 53% of questioned persons never received of any information regarding pressure ulcer prevention .The study concluded that family caregivers of bed ridden patient have insufficient knowledge of pressure ulcer prevention.

Mirjam.A,Hudsenboom (2007),conducted a cross sectional study on knowledge of pressure sore prevention among the nurses employed in Dutch hospital, 522 respondents' were selected conviently, questionnaire was used to investigate their knowledge, the study shows that 58% of them had good knowledge on risk factors, 55% had moderate knowledge on prevention aspects. The study concludes that the knowledge was slightly better.

Mukhter,et.all., (2006), done a cross sectional survey on nurses attitude towards bedsore prevention in Saudi, 100 nurses working in an acute care setting was randomly selected, data was collected through structured questionnaire and 5 point Likert scale used, results shows that 75% of staff nurses felt that all patients are at risk of developing a pressure ulcer that most bedsore can be avoided (76%) and nurses should concern themselves with bedsore prevention (99%).This study suggest the positive attitude are not enough ensure that practice implementation strategies should be introduced ways in which key nursing staff can be empowered to overcome barriers to change.

3. Literature related to other teaching programme on knowledge regarding prevention of pressure sore

Fisseha Zewdu.et.al., (2015) had conducted an institution-based education from March 15 - April 10, 2014 among 248 nurses in Gondar University hospital. A pretested and structured self-administered questionnaire was used for data collection. Result shows that nearly half (54.4 %) of the nurses had poor knowledge; similarly 48.4 % of them had poor practice on prevention of pressure ulcer, formal training was ginen then post test was conducted, in that most of the samples (78%) had scored adequate knowledge with the mean knowledge score 3.9. The study concluded that institution-based education was effective in knowledge improvement of pressure sore.

Mallah.Zenab,et.al.,(2014) conducted a evaluatory and prospective research on effectiveness of pressure ulcer intervention programme on the prevalence of hospital acquired pressure ulcer, the study focus on multidisciplinary intervention to assess which component of intervention was most predictive, 468 patients admitted in Uppsala, Sweden is used from Jan 2012 to April 2013, result shows hospital acquired pressure

ulcer (HAPU) was significantly reduced from 6.63% in 2012 to 2.47% in 2013. Sensitivity to Braden scale is predicting HAPU was 92.3% and specifically 60.4%. So the study concluded that multidisciplinary approach was effective in decreasing the prevalence of hospital acquired pressure ulcer.

Salwa A. Mohamed,et.al.,(2014), done a quasi-experimental study to assess the effect of implementing educational program about pressure ulcer control on nurses' knowledge and safety of immobilized patients in Mansoura University Hospital, 40 nurses in addition to 40 patients were randomly selected, structured questionnaire and observational checklist used to collect data. The study revealed that most of nurses (77.5%) had unsatisfactory knowledge regarding pressure ulcer pre test, while the majority of participants (87.5%) after application of the program, this improvement was partially lost (80%) during follow up assessment and the distribution of practice score in the studied sample. While posttest, the more than half (57.5%) of the participants received the score (good) and 30% of the subjects received the score (pass), only 10% were poor score in the study, significant correlation between knowledge and practice with age during post and follow up assessment ($r = 0.481$ and 0.361 at $p < .05$). In relation to practice, there is a significant correlation between practice and age post and follow up program ($r = 0.325$ and 0.337 at $p < .05$). While there are no statistically significant relations between education, experience and knowledge and practice ($p > .05$).

Campbell (2010), done an evaluatory study to implement and evaluate a heel pressure ulcer prevention program (HPUPP) for orthopedic patients in Canada. Program development of HPUPP involved input from administrators, staff and adult patients on an orthopedic service in an academic tertiary care facility, located in a small urban center in Canada. Prospective evaluation was conducted. After the program was implemented, the incidence of heel pressure ulcers was 0%, which was a significant reduction compared with pre implementation levels 13.8% (95% confidence interval 8 -18 %).

El-Sayed (2010) had done a quasi-experimental study on impact of training program to identify, prevent and manage bedsores for immobilized patients, in University Hospital, Belgium. 31 nurses in addition to 100 patients admitted were selected purposively. Four tools were used for data collection: pre/post-test questionnaire sheet,

observation checklist, Braden scale and patient assessment sheet. A training program was designed to enrich nurses' knowledge and practices about identification, prevention and management of bed sores. A pretest was carried out for nurses pre program, in addition to post-program testing immediately, one and two months after wards. Moreover, a group of 50 immobilized Patients were assessed for development of bedsores before program implementation and another 50 immobilized patients were assessed after program implementation nurses knowledge and practices mean scores about identification, prevention and management of bedsores were improved singifcationly (P=0.001 for all items) after program implementation. The impact of attending the program on Braden scale scores for knowledge and practices was also statistically significant (P=0.001 for both). Incidence of bed sores were significantly more among immobilized patient's program implementation than after ward (P=0.0327).

Chaves.L.Met. et.al.,(2010), conducted a study to determine the quality of protocols for pressure ulcer prevention in home care in the Netherlands with current pressure ulcer prevention protocols from 24 home care agencies were evaluated. A checklist developed and validated by 2 pressure ulcer experts was used to assess the quality of the protocols, and weighted and unweighted quality scores were computed and analyzed using descriptive statistics. The result was 24 pressure ulcer prevention protocols had a mean weighted quality score of 63.38 points out of a maximum of 100. The importance of observing the skin at the pressure points at least once a day was emphasized in 75% of the protocols. Only 42% correctly warned against materials that were less effective or that could potentially cause harm.

Ms.Diana Lobo (2009), had conducted a study on "effectiveness of Individual Planned Teaching to the care givers on prevention of pressure sore in bed ridden patients admitted to Fr Muller Medical College Hospital, Mangalore". A quasi experimental approach with one group pre-test and post-test adopted for study a sample of 30 care givers of 30 bedridden patients. They were selected by using convenience sampling technique. The result was most of the caregivers (63%) had no prior experience of staying with the patients in the hospital. Majority (90%) of caregivers had a very good knowledge scores (81-100%) in the post test. The mean difference between post-test and

pre-test knowledge scores on prevention of pressure sores which was found to be significantly high (29) = ($p<0.05$).

Moya (2008) investigated in randomized clinical trial the effectiveness of a home-based educational intervention in reducing the incidence and the risk of falls and pressure ulcer in adults with progressive neurological conditions. Sample was selected randomly, 100 caregivers of neurological clients in 4 rehabilitation hospitals in USA by using experimental design pretest – post test data collection was obtained, educational program was administered. The result was the incidence of pressure ulcer reduced from 7% prior to educational program to 5% post education.

Janini Kurian(2008), done on interventional study to determine the effectiveness of structured teaching program on prevention of pressure sore in Bapuji Hospital Dhavangere, 55 care givers of immobilized patient using stratified random sampling were taken.The study adopted one group pre test post test design. The data was collected by using structured interview schedule and analyzed. The data showed that, the post test knowledge (m=28.4) is significantly higher than pre test knowledge (m=15.2). The investigator concluded that the structured teaching program was a good method for conveying information to the care givers and was very effective.

Joseph J (2008), performed an interventional study to assess the effectiveness of planned teaching program on knowledge and skills in back care among care givers of bedridden patients, in Kasturba hospital, Manipal. The study design is one group pretest and post test and 30 samples were collected by purposive sampling technique. Data was collected by structured questionnaire. The result of the study showed that there is a significant difference (that is t= 16.49)in the pre and post test knowledge scores of care givers of bedridden patients who under gone planned teaching program .The study thus concluded that the planned teaching program helps to improve the knowledge of care givers regarding back care of immobilized patient .

Sinclain L et.al, (2007), conducted a quasi experimental study on "evaluation of an evidenced based program for pressure sore prevention". The purpose of the study was to implement and evaluate a standardized workshop for and two levels of nursing staff. A quasi experimental design was used. The convenient sample included were registered nurses (n=595) and licensed practitioner nurses (n=59) employed in there acute care hospital, Bengal, with a total bed capacity of 1760. The questionnaire was given before the pre-test post- test with three month duration. Data was analysed using descriptive statistics. The result was general knowledge course for the total groups were significantly higher. The evidence based pressure ulcer education was effective increasingly in registered nurses and licensed practical nurses knowledge.

4. **Literature related to video assisted teaching on knowledge regarding prevention of pressure sore**

Amanda M.Thornton (2013) perrformed analytical study on the impact of patient and nurse assessment of risk on the use of video teaching strategies in Florida. A total of 179 patients and 35 nurses were involved. Baseline data was collected from patients and nurses about patients' knowledge level about pressure ulcers as well as their participation in PU prevention activities, then a brief video shown to educate patients and their families about PU prevention upon admission. A repeat data collection for the patients and nurses will be conducted to evaluate whether the intervention was effective. 46 patients were between low and very high risk of developing pressure ulcers according to their Braden score. Of those 179 patients, 16 patients who had low Braden scores (18 and below) did not have any knowledge of their risk or what a pressure ulcer is. Another 73 patients stated that they were not educated about pressure ulcers in the hospital, but learned about them through personal experiences. Study shows the education was effective in prevention of pressure sore.

CHAPTER III

RESEARCH METHODLOGY

This chapter deals with the methods adopted by the researcher to find out the effectiveness of video assisted teaching on prevention of pressure sore among care givers of immobilized patients. It deals research approach, research design, the setting, population, sample size, sampling technique, development and description of tool, validity, reliability, pilot study and procedure for data collection for data analysis.

Research approach:

Evaluatory approach was used in this study. It aimed to evaluate the effectiveness of video assisted teaching on prevention of pressure sore among care givers of immobilized patients.

Research design:

Pre experimental one group pre test post test design was adopted for this study

Table: 1

GROUP	PRETEST	EXPERIMENT	POST TEST
E	O_1	X	O_2

E - Experimental group

O_1 – Pretest assessment of knowledge of caregivers regarding prevention of pressure sore in immobilized patients

X - Video assisted teaching programme

O_2- Posttest assessment of knowledge of care givers regarding prevention of pressure sore in immobilized patients

Variables under the study

i) **Independent variables**

Video assisted teaching rendered by the researcher to the care givers of immobilized patients was independent variable in this study

ii) **Dependent variables**

Knowledge of prevention of pressure sore was dependent variable in this study.

Setting of the study:

The study was conducted in Neethi Arasu Neurological hospital, Managiri, Madurai which is 20 km away from our college of Nursing. This hospital is a 50 bedded hospital with 8 beds in ICU; approximately 200 inpatients are admitted every month. The hospital is also having the facilities of laboratory, pharmacy and physiotheraphy departments.

Target population:

Care givers of immobilized patients who are admitted with neurological problems.

Accessible population:

Care givers of immobilized patients at Madurai.

Sample:

Care givers of immobilized patients in Neethi Arasu Neurological Hospital, Managiri, Madurai.

Sample size:

Sample size consists of 60 care givers of immobilized patients admitted in Neethi Arasu Neurological Hospital, Managiri, Madurai, who fulfilled the inclusion criteria were considered as a sample.

Sample technique:

Non probability – purposive sampling technique was used for this study.

Criteria for sample selection:

The samples are selected based on the following inclusion and exclusion criteria.

Inclusion criteria: The study includes, Care givers of immobilized patients, who were

- admitted in Neethi Arasu neurological hospital
- willing to participate
- available at the time of data collection
- able to understand tamil

Exclusion criteria:

- Care givers of immobilized patients who are already participated in pressure sore prevention programme.
- Care givers who are in medical field.

Research tool and technique:

The instruments used in this research study consisted of three sections.

Section A

Section A.1: It comprised of demographic variables of patients such as gender, age, duration of imposed to bed.

Section A.2: It comprised of demographic variables of care givers such as gender, age, religion, marital status, relation to patient, educational status, monthly income of the family and family members in health field.

Section B

It comprised of semi structured questionnaire to assess the care givers knowledge regarding prevention of pressure sore in immobilized patients. It was edited as per the blueprint and different content area. It consist of 30 multiple choices questions. Part 1: it consisted of skin and its function (included 3 questions). Part 1I: it consisted of general information about pressure sore (included 10 questions). Part 1I: it consisted of prevention of pressure sore (included 17 questions).

Scoring Procedure

There were four choices, out of which one was correct answer and the remaining three where wrong answers. A score of 'one' was allotted to each correct response. 'zero' was rewarded for the wrong response. Thus there were 30 maximum obtainable scores. The level of knowledge was graded based on percentage of scores obtained

Level of knowledge

Adequate (Above 75%)

Moderate (50 – 75%)

Inadequate (Below 50%)

Section C

It comprised video assisted teaching on knowledge regarding prevention of pressure sore among immobilized patients. The content on prevention of pressure sore was prepared through literature review and in consultation with experts. The content of the video assisted teaching was organized well by the following headings

- Skin and its function
- Definition of pressure sore

- ❖ Causes of pressure sore
- ❖ Common sites of pressure sore
- ❖ Pathogenesis of pressure sore
- ❖ Stages of pressure sore
- ❖ Prevention of pressure sore
  - ✓ Topical skin care
  - ✓ Back rub
  - ✓ Positioning and Comfort devices
  - ✓ Bed making
  - ✓ Hydration and Nutrition

Content validity:

Data collection tool was evaluated by experts from the field of Nursing and Medicine for content validity. Suggestions were considered and appropriate changes were done and to made the tool to be valid.

Reliability:

The data were collected from 6 samples to find out the reliability. The test- re- test method was used to establish the reliability of the tool. This was done by the questionnaire was filled by same sample at different intervel. The reliability coefficient of the whole test then estimated and the value obtained was (r=0.94) which indicates that tool was reliable.

Pilot study:

Pilot study was conducted in Neethi Arasu neurological hospital, Madurai for the period of one week with 6 care givers in order to test the feasibility, relevance and practicability of the tool. Results show that the tool was feasible to carry out the main study.

Data collection procedure:

The investigator met the head of the institution in order to obtain permission and co-operation to conduct the study successfully. The formal prior permission was obtained from the Director of Neethi Arasu neurological hospital, Managiri, Madurai for the main study. The investigator introduced herself to the care givers and established rapport with them. The study was conducted for period of four weeks. The investigator selected the sample they fulfilled the inclusion criteria. The informed consent was obtained. Appropriate orientation had given to the subjects about the aim of the study, nature of questionnaire and adequate care was taken for protecting the subjects from potential risk including maintain confidentiality, security and identity. The demographic variables collected from the subjects. The pre test was done to assess the care givers knowledge through semi structured questionnaire. The video assisted teaching programme was administered. The post test of study was carried out one week later, using same tool as the pre test. Collected data was then tabulated and analyzed.

Plan for data analysis:

Data analysis was done according to the objectives of the study. Both descriptive and inferential statistics were used.

1. Analysis of the demographic data was done by frequency, mean, percentage.
2. Paired‘t’ test was used to determine the difference between the pre test and post test score in terms of effectiveness ofvideo assisted teaching programme.
3. Chi square test was used to determine the association between the selected demographic variables and pre test level of knowledge.

Protection of human rights:

Research proposal was approved by the dissertation committee, RASS academy college of Nursing, Poovanthi. Prior to the study oral consent was obtained from care givers of immobilized patients before starting the data collection. Assurance was given to the samples that confidentiality would be maintained.

CHAPTER-IV

ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with the analysis and interpretation of data collected from the care givers who have received the video assisted teaching. The collected data were tabulated, analyzed and presented. It consists of the following sections:

- **Section I:** Description of the patients according to their selected demographic variables
- **Section II:** Description of the care givers according to their demographic variables
- **Section III:** Description of the care givers according to their pretest and post test leve of knowledge regarding prevention of pressure sore.
- **Section IV:** Comparison of pretest and post test level of knowledge on prevention of pressure sore
- **Section V:** Association between pretest level of knowledge of care givers and their selected demographic variables

SECTION I

Description of the patients according to their selected demographic variables.

Table 2: Distribution of patients according to their selected demographic variables

N=60

S. No	Demographic variables	Frequency (f)	Frequency (f %)
1	**Gender**		
	a. Male	40	66
	b. Female	20	44
2	**Age in years**		
	a. Less than 20	04	06
	b. 21 -30	06	10
	c. 31 – 40	19	32
	d. Above 40	31	52
3	**Duration of imposed to bed**		
	a. < 30 days	22	36
	b. 1 month – 3 months	17	29
	c. 4 months – 6 months	17	29
	d. >6 month	04	06

Table 2 summarizes that demographic characteristics of immobilized patients among 60, with regards to gender 40 (66%) were males, 20 (44%) were females. With regards to age only 4 (6%) were below 20 years, 6 (10%) were 21-30 years, 19 (32%) were 31-40 years, 31 (52%) were above 40. Regarding duration of imposed to bed 22 (36%) were less than 30 days, 17 (29%) were between 1-3months, 17 (29%) were between 4-6months and 4 (6%) were above 6 months.

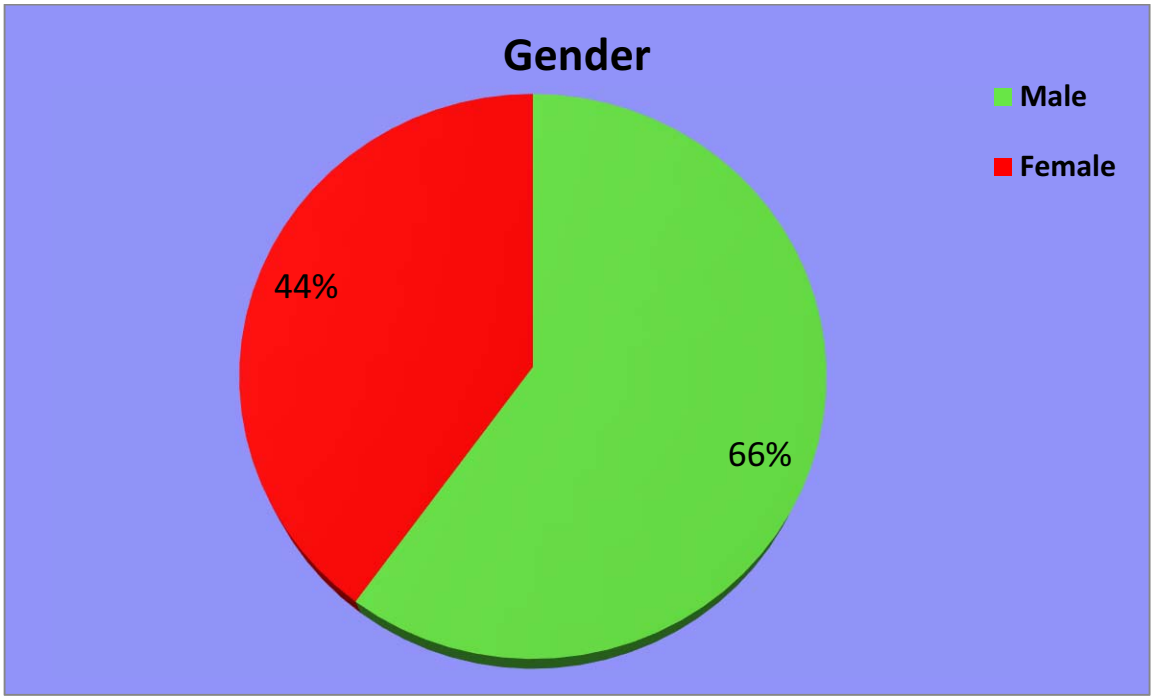

Figure 2: Distribution of patients according to their gender

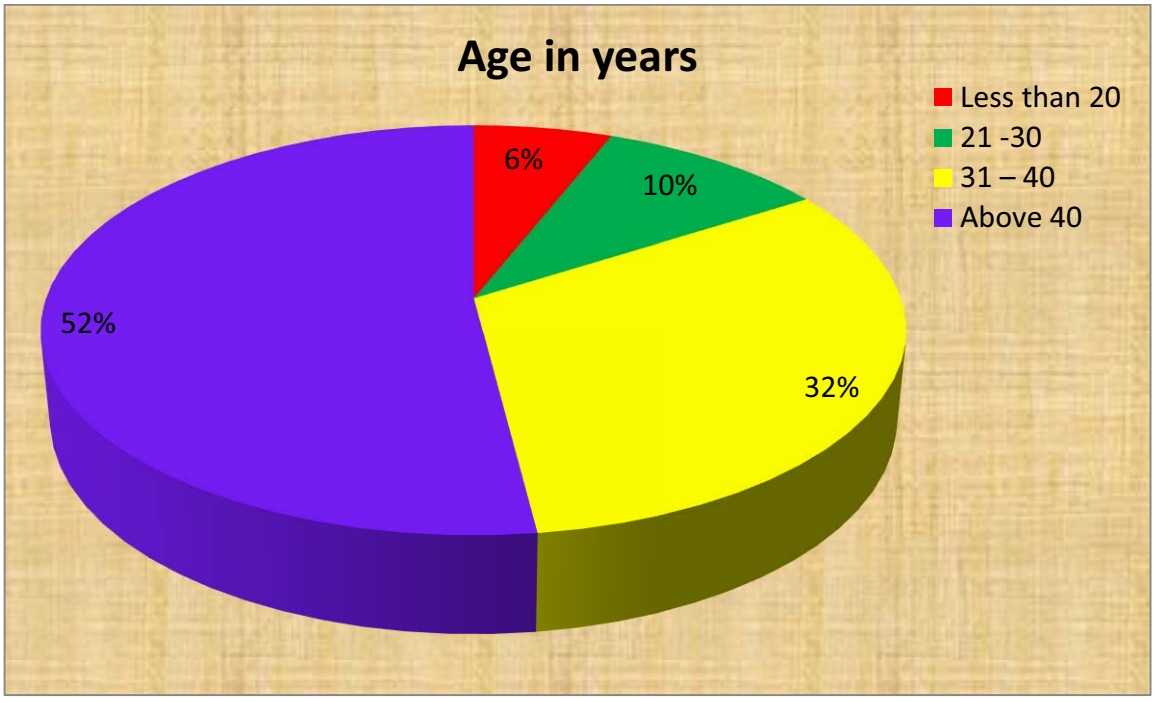

Figure 3: Distribution of patients according to their age

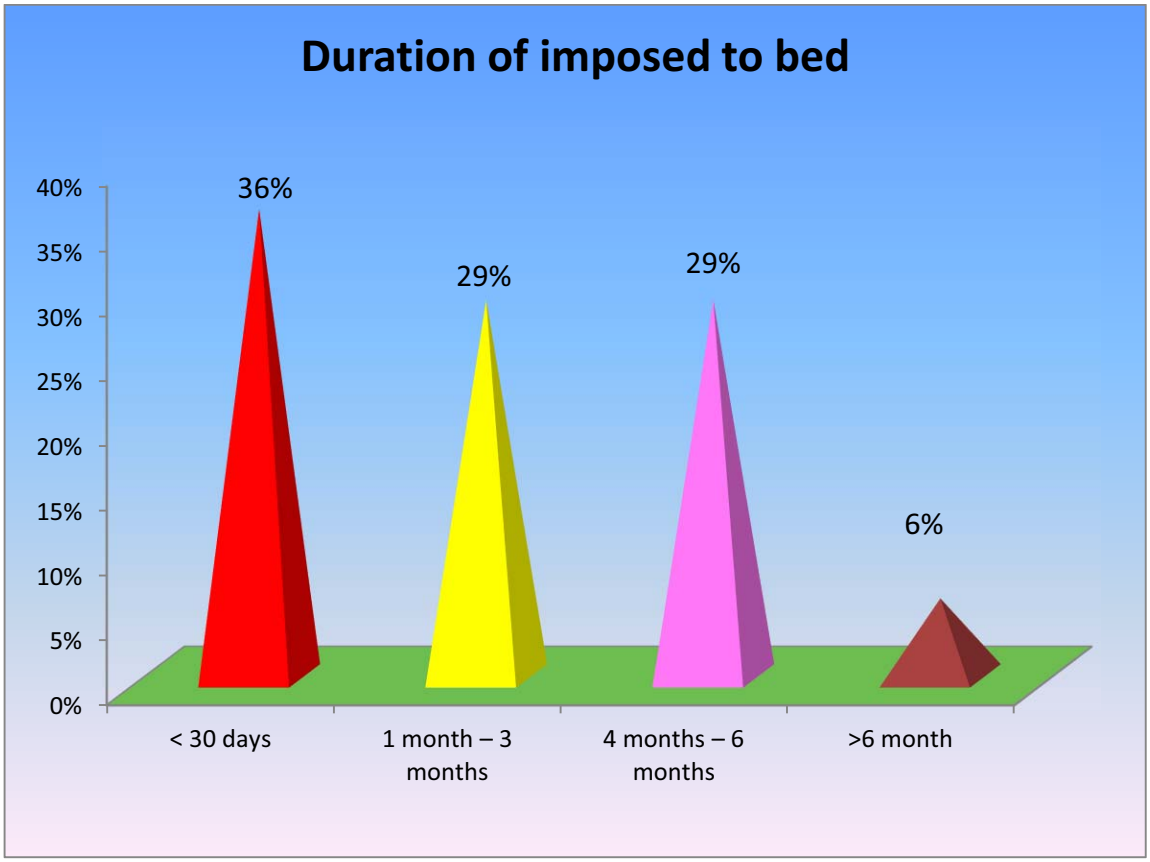

Figure 4: Distribution of patients according to their duration of imposed to bed

SECTION II

Description of the care givers according to their demographic variables.

Table 3: Distribution of care givers according to their demographic variables

N=60

S. No	Demographic variables	Frequency(f)	Frequency (f %)
1	**Gender of the Caregiver**		
	a. Male	23	38
	b. Female	37	62
2	**Age in years**		
	a. Less than 20	0	0
	b. 21 – 30	08	14
	c. 31 – 40	29	48
	d. Above 40	23	38
3	**Religion of the care giver**		
	a. Hindu	25	42
	b. Muslim	22	36
	c. Christian	13	22
4	**Marital status of care giver**		
	a. Married	55	92
	b. Unmarried	05	08

5	**Relation to the client**		
	a. Spouse	34	56
	b. Children	05	08
	c. Grand children	16	28
	d. Others	05	08
6	**Educational status**		
	a. Illiterate	0	0
	b. Primary education	10	16
	c. Secondary education	32	54
	d. Graduate	18	30
7	**Monthly income of the family**		
	a. Rs 5000- 10000 / month	04	06
	b. Rs10001 -15000 / month	13	22
	c. Rs 15001 – 20000 / month	25	42
	d. >Rs 20000/month	18	30
8	**Family members in health field**		
	a. Yes	10	16
	b. No	50	84

Table 3 summarizes that demographic characteristics of care givers among 60, with regards to gender 23 (38%) were males, 37 (62%) were females. With regards to age no body was below 20 years, 8 (14%) were 21-30 years, 29 (48%) were 31-40 years, 23 (38%) were above 40. Regarding religion 25 (42%) was Hindu, 22 (36%) were Muslim, 13 (22%) were Christians. Regarding marital status 55 (92%) were married, 5 (8%) were unmarried. Regarding relationship with the patients 34 (56%) were spouse, 5 (8%) were children, 16 (28%) were grand children, 5 (8%) were others. Regarding educational status no illiterate, 10 (16%) were primary education, 32 (54%) were secondary education, 18 (30%) were graduates. Regarding family members in health field 10 (16%) were infield, 50 (84%) were not in field.

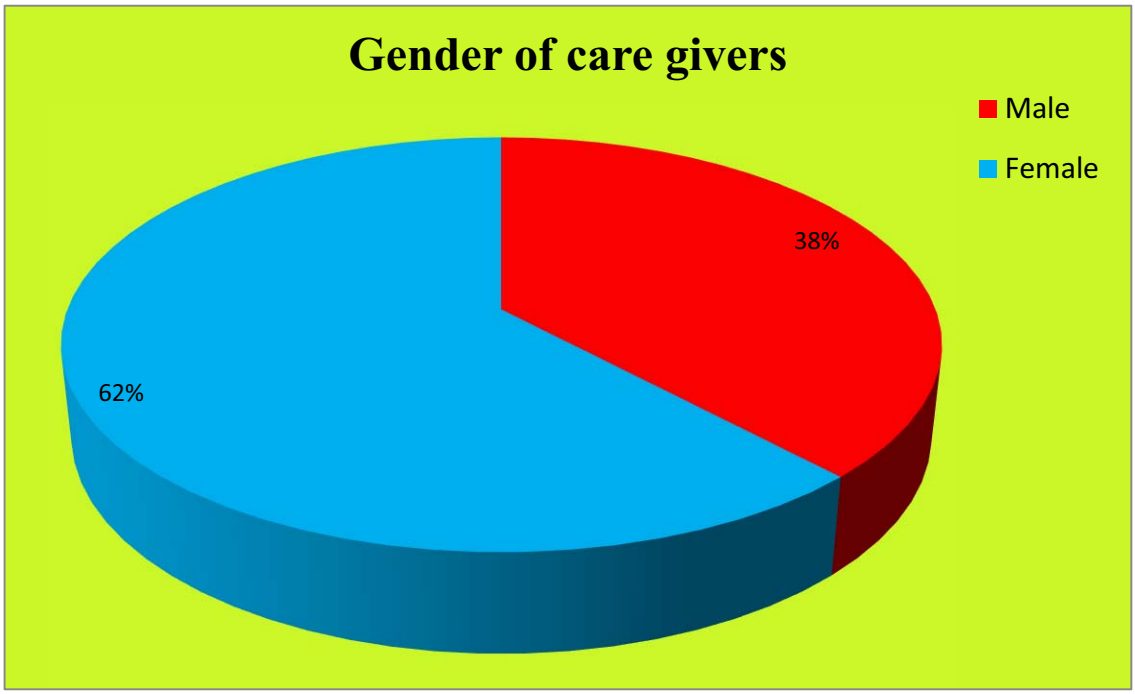

Figure 5: Distribution of care giver according to their gender

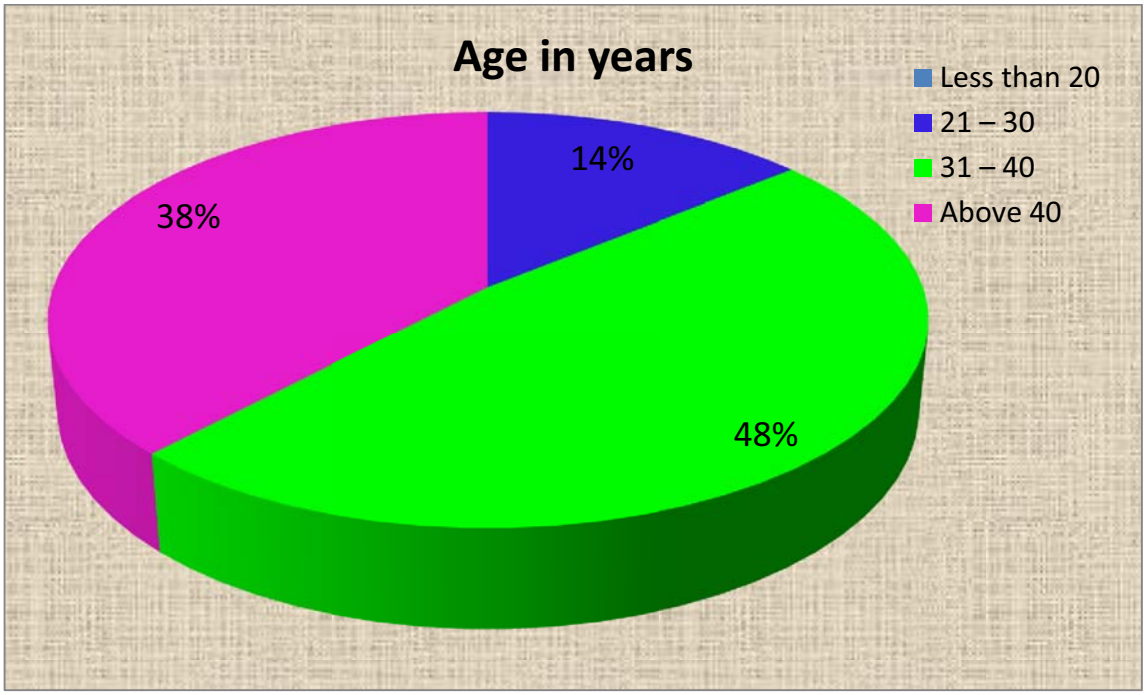

Figure 6: Distribution of care giver according to their age

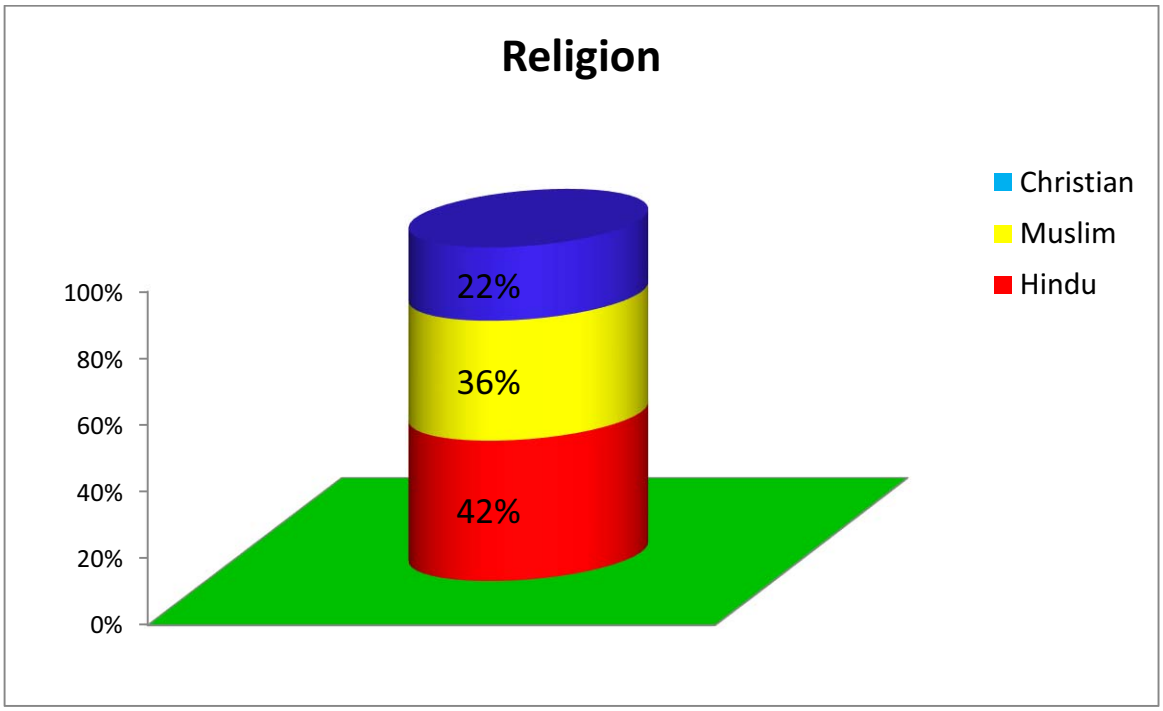

Figure 7: Distribution of care giver according to their religion

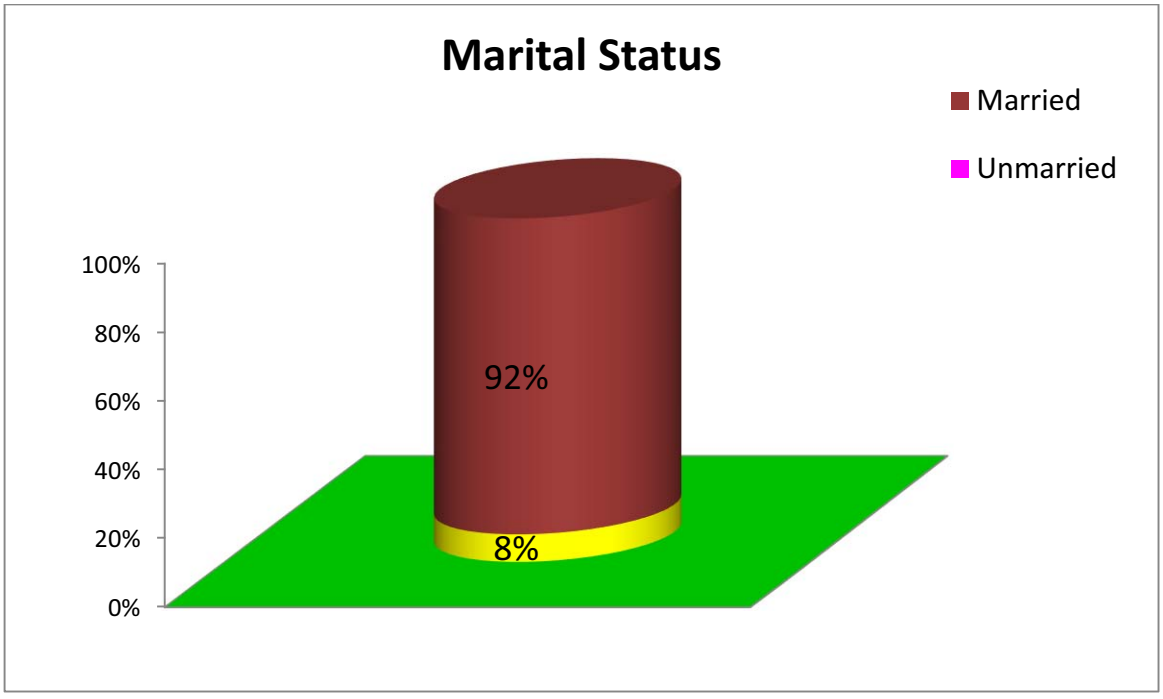

Figure 8: Distribution of care giver according to their marital status

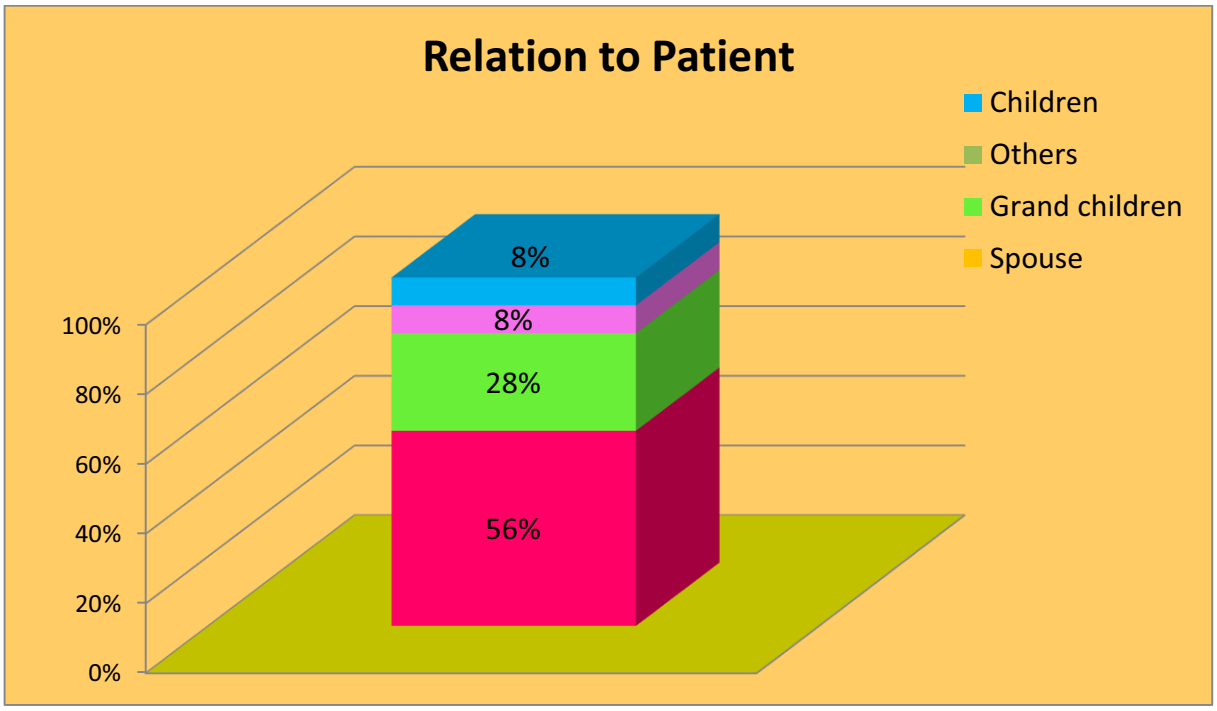

Figure 9: Distribution of care giver according to their relation to patient

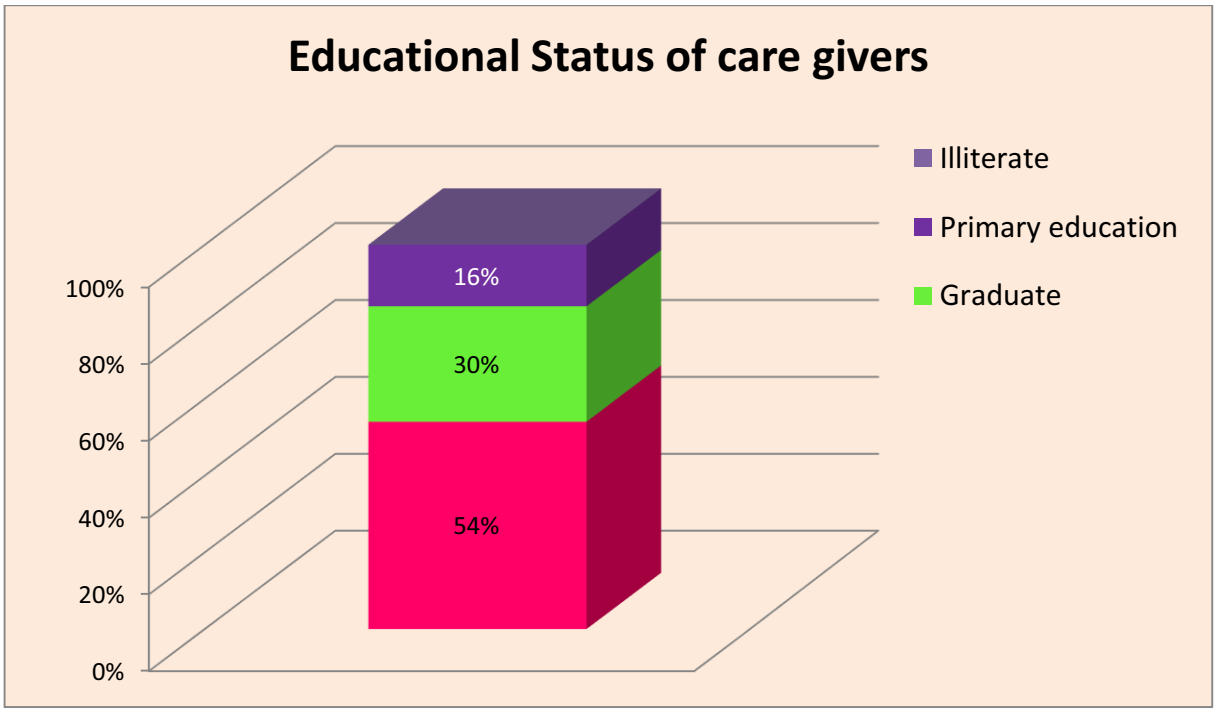

Figure 10: Distribution of care giver according to their educational status

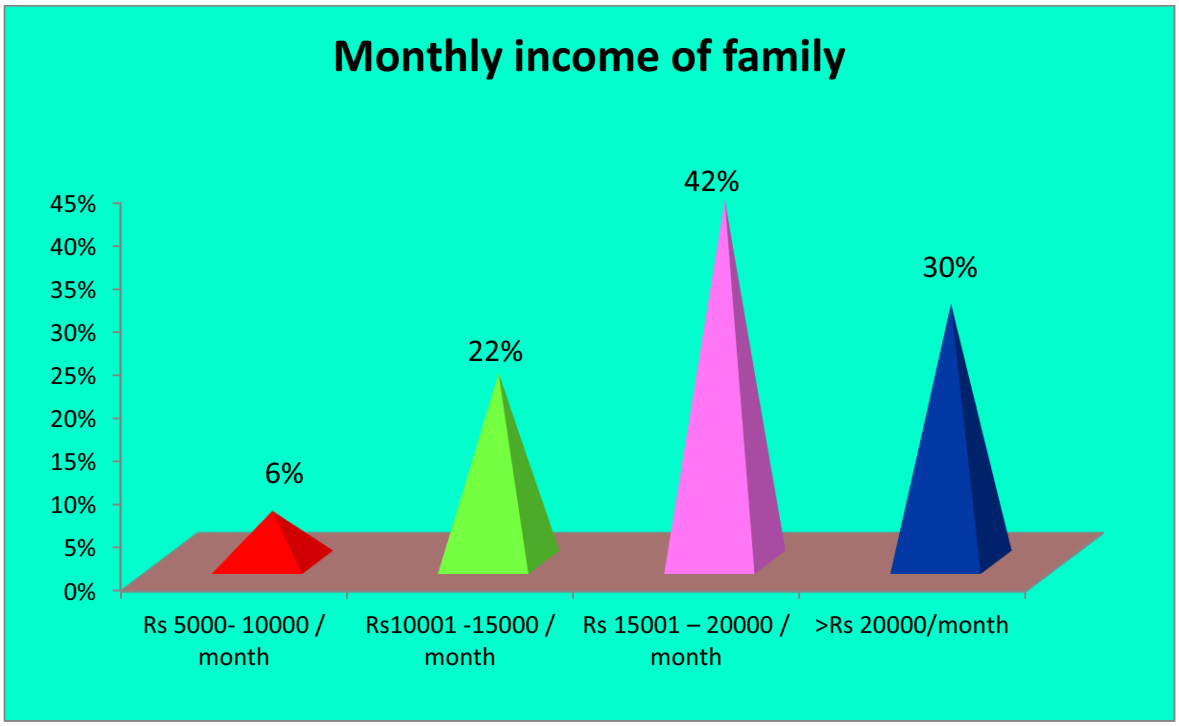

Figure 11: Distribution of care giver according to their family income

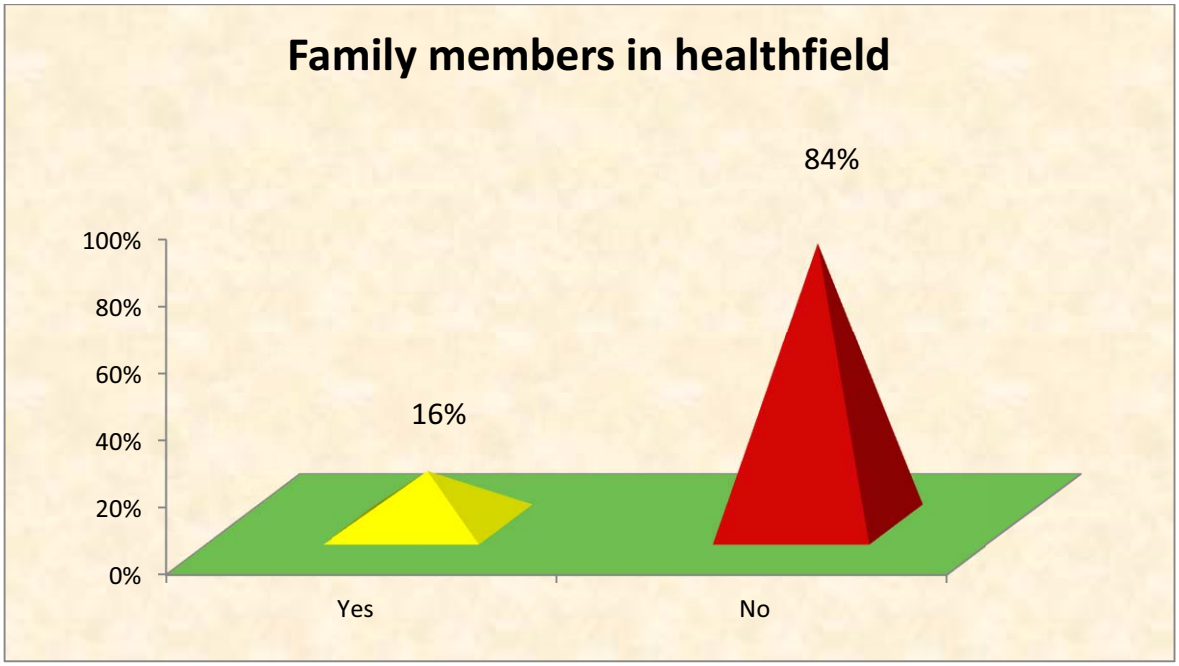

Figure 12: Distribution of care giver according to their family members in health field

SECTION III

Description of the care givers according to their pretest and post test level of knowledge on prevention of pressure sore.

Table 4: Distribution of care givers according to their pretest and post test level of knowledge on prevention of pressure sore

N=60

S. No	Level of knowledge	Pre test			Post test		
		F	Mean	%	F	Mean	%
1	Adequate (Above 75%)	0	0	0%	53	26	88%
2	Moderate (50 – 75%)	13	15.6	22%	7	21.4	12%
3	Inadequate (Below 50%)	47	10.7	78%	0	0	0%

Table 4 depicts that, the pre test and the post test level of knowledge. In the pretest majority 47 (78%) of the care givers had inadequate knowledge level and 13 (22%) had moderate level of knowledge. Nobody scored adequate (above 75%) marks in pre test. But in the post test, Majority 53 (88%) of the care givers had adequate knowledge level (above 75%) and only 7 (12%) of them scored moderate knowledge level 50-75%). The above findings summarizes that, the video assisted teaching has significant beneficial effect in the level of knowledge among care givers.

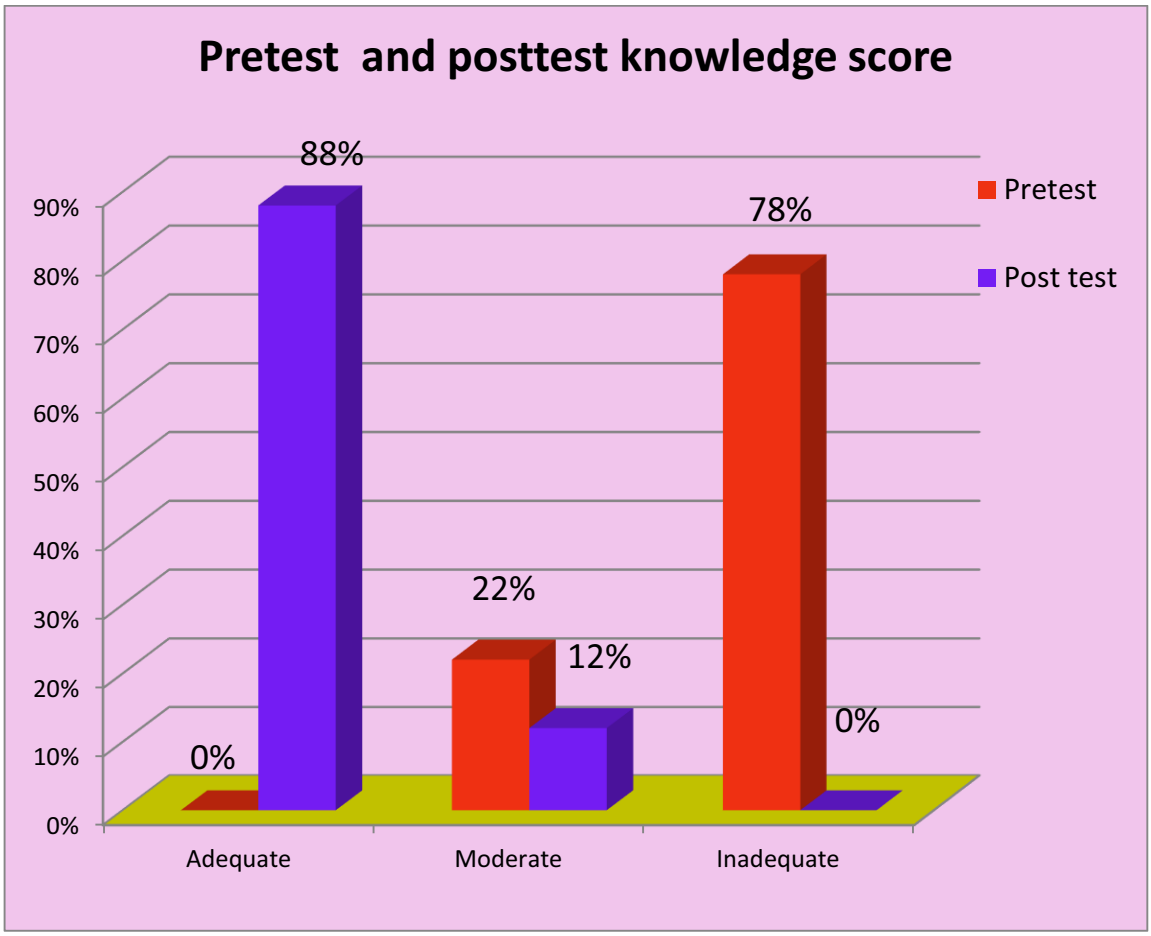

Figure 13: Distribution of care giver according to their pretest and posttest knowledge level

SECTION IV

Comparison of pretest and post test level of knowledge on prevention of pressure sore.

Table 5: Comparison of pretest and post test level of knowledge on prevention of pressure sore

N=60

S. No	Level of knowledge	Mean	Mean difference	SD	't' value
1	Pre test	11.8	13.7	1.91	33.4**
2	Post test	25.5			

(**=Significant at 0.05 level)

The above table depicts comparison of mean pre test and post test knowledge level on prevention of pressure sore. The post test mean score (25.5) was high when compared to the pre test mean (11.8) score of knowledge. The obtained t value (33.4) was greater than table value at 0.05 level of significance, which shows that there is significant difference between the pre test and post test level of knowledge regarding pressure sore prevention among care givers of immobilized patients. **Hence, the formulated research hypotheses H1 was accepted**

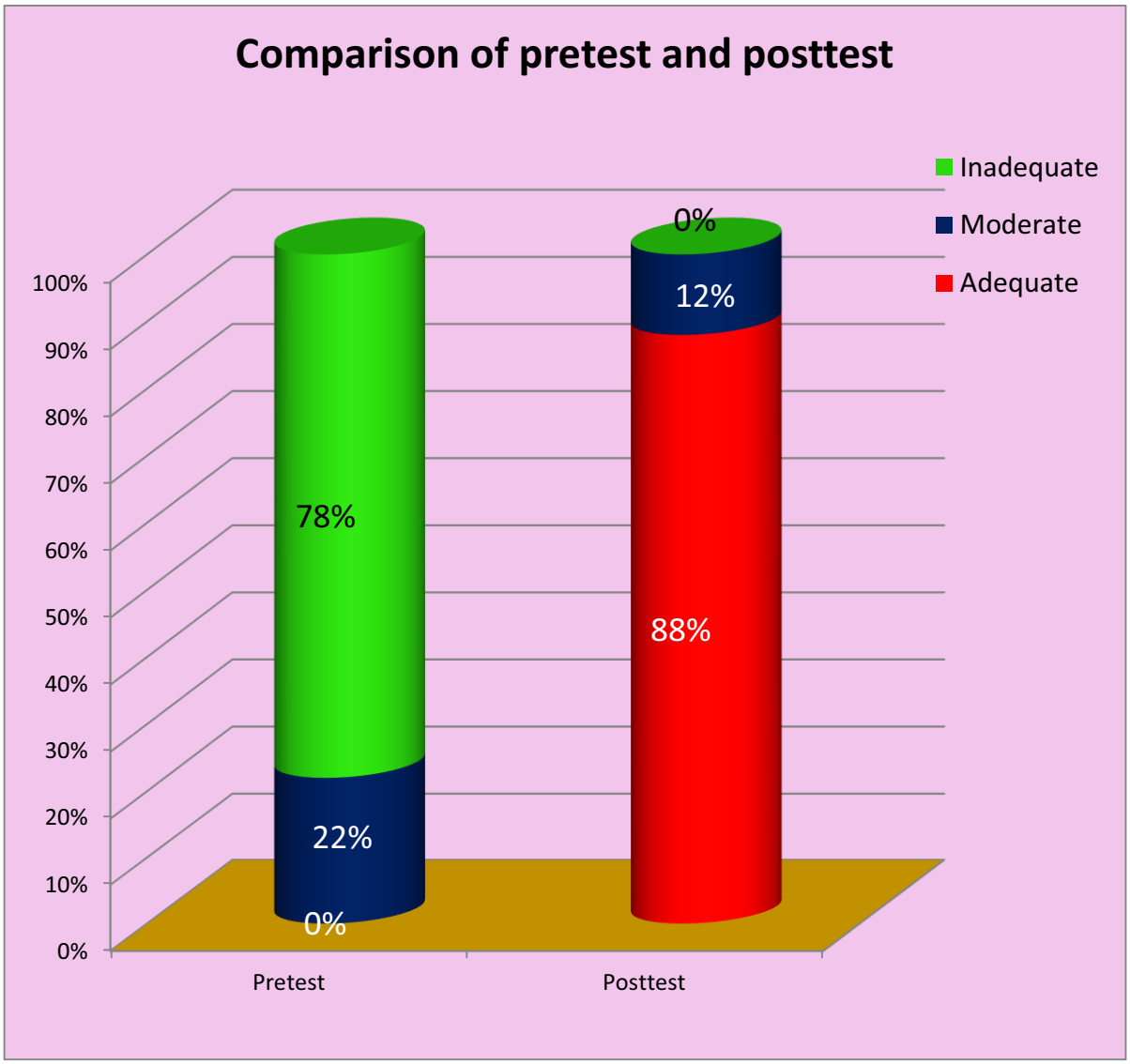

Figure 14: Comparison of pretest and posttest knowledge level of care givers

SECTION V

Association between pretest level of knowledge and their selected demographic variables

Table 6: Association between pretest level of knowledge and their selected demographic variables

N=60

S. No	Demographic variables	Level of knowledge		$\chi 2$	Table value	Level of significance
		Above mean	Below mean			
1	**Gender**					
	(a). Male	11	12	0.17	3.84	(NS)
	(b) Female	17	20			
2	**Age in years**					
	(a) Less than 20	0	0			
	(b) 21 – 30	3	5			
	(c) 31 - 40	12	17	2.97	7.82	(NS)
	(d)Above 40	13	10			
3	**Religion**					
	(a) Hindu	12	13			
	(b) Muslim	07	15	6.47	5.99	(S)*
	(c) Christian	09	04			
4	**Marital status of care giver**					
	(a) Married	26	29	1.37	3.84	(NS)
	(b) Unmarried	01	04			

5	**Relation to the client**					
	(a) Spouse	17	17			
	(b) Children	03	02	2.37	7.84	(NS)
	(c) Grand children	05	11			
	(d) Others	02	03			
6	**Educational status**					
	(a) Illiterate	0	0			
	(b) Primary education	04	06	0.23	7.84	(NS)
	(c) Secondary education	15	17			
	(d) Graduate	09	09			
7	**Monthly income of the family**					
	(a) Rs 5000- 10000 / month	03	01			
	(b) Rs10001 -15000 / month	05	08			
	(c) Rs 15001 – 20000 / month	13	12	5.77	7.84	(NS)
	(d) >Rs 20000/month	04	14			
8	**Family members in health field**					
	(a) Yes	05	05			
	(b) No	21	29	4.23	3.84	(S)*

(*=Significant at 0.05 level)

The above table depicts the association of care givers knowledge on prevention of pressure sore with their selected demographic variables, Chi square test was used. The obtained Chi square value for religion (6.47) and family members in health field (4.23) were greater than the table value at 0.05 level of significance. So there is a

significant association exist between the care givers knowledge and their religion, family members in health field.

Regarding care givers gender, age, marital status, relation to the client, educational status and monthly income of the family, the calculated value of chi-square was less than the table value at 0.05 level of significance. So there was no significant association exist between these variables and care givers knowledge.

CHAPTER V

DISCUSSION, SUMMARY, CONCLUTION, IMPLICATION, RECOMMENDATION

Pressure ulcers are lesions caused by unrelieved pressure that results in damage to the underlying tissue. Generally, these are the result of soft tissue compression between a bony prominence and an external surface for a prolonged period of time. The consequences of pressure-induced skin injury range from non bleachable erythema of intact skin to deep ulcers extending to the bone. The ulcer imposes a significant burden not only on the patient, but the entire health care system. Reducing the frequency of pressure ulcers is an important component of current goals for patient safety.

Pressure ulcers occur over bony prominences. The most common areas for pressure ulcers include the sacrum, coccyx, heels, and ear. Pressure over a bony prominence causes tissue ischemia in the skin, muscle, and the fascia between the skin surface and bone. In addition to pressure, moisture, friction, and shear contribute to the development of pressure ulcers. Pressure ulcers remain the chief complications of prolonged hospitalization, specifically in situations of poor nutrition, increased moisture on the skin e.g., incontinence, prolonged pressure, and compromised sensory stimuli.

Pressure ulcers increase the cost of hospitalization, increase patient morbidity and mortality, and play a significant role in the spread of infection in the clinical area. Stage IV pressure ulcers have a high cost, and stopping the progression of early stage pressure ulcers can significantly reduce expenditures in resource strained facilities and decrease unnecessary pain impacting thousands of patient lives. Prevention of pressure ulcer is always better than treating the complication associated with it, with higher expenses. Pressure ulcer occurs almost exclusively in people with limited mobility, so it is a challenge to prevent the occurrence of pressure ulcer.

The aim of the present study was to evaluate the effectiveness of video assisted teaching on knowledge regarding prevention of pressure sore among care givers of immobilized patients in selected hospitals, Madurai district. The researcher had selected

60 care givers who were in Neethi Arasu Neurological hospital. Non probability purposive sampling technique was used to drive the samples.

The first objective was to assess the pre test level of knowledge regarding prevention of pressure sore among care givers of immobilized patients.

Salwa.A.Mohamed,et.al.,(2014), done a quasi-experimental study on to effect of implementing educational program about pressure ulcer control on nurses' knowledge and safety of immobilized patients, 40 nurses working in the critical care units at Mansoura University Hospital, in addition to 40 patients were randomly assigned from these units previous. A structured questionnaire and observational checklist used to collect data. The study revealed that most of nurses (77.5%) had unsatisfactory knowledge regarding pressure ulcer pre test, While posttest, the more than half (57.5%) of the participants received the score (good) and 30% of the subjects received the score (pass), only 10% were poor score in the study.

Similarly in this study, care givers knowledge regarding prevention of pressure sore was assessed. Majority 47 (78%) of the care givers had inadequate knowledge level and 13 (22%) had moderate level of knowledge. Nobody scored adequate (above 75%) marks in pre test.

The second objective was to assess the effectiveness of video assisted teaching programme on knowledge regarding prevention of pressure sore among care givers of immobilized patients.

Khalid Fahd,et.al.,(2012), performed a quasi experimental study on effect of the designed pressure ulcer prevention programme on care givers knowledge of immobilized patients in King Fahd hospital, 64 male and female care givers are selected randomly, structured questionnaire was used to collect data, 96.9% of the sample had poor knowledge with mean score of (7+3.8) regarding pressure sore in the pre test, but in the post test, 93.8% of them had good knowledge with mean score of (19.2+3.1), there was highly statistical difference between the pre test and post test and t- value is 17.9 with p-value 0.001, the study concluded that implementation of the educational programme for

caregivers showed remarkable improvement of the care givers knowledge in preventive of pressure sore.

Similarly in this study also, care givers shown improved knowledge after video assisted teaching programme on prevention of pressure sore. Majority 53 (88%) of the care givers had adequate knowledge level (above 75%) and only 7 (12%) of them scored moderate knowledge level 50-75%). The post test mean score was (25.5) high when compare to pre test mean (11.8) score of knowledge. The obtained t value (33.4) was greater than the table value at 0.05 level of significance, which shows there is a significant difference between the pre test and post test level of knowledge regarding prevention of pressure sore among care givers of immobilized patients. Hence, the formulated research hypothesis **H_1 was accepted.**

The study results shows that there was significant improvement in knowledge level of the care givers regarding prevention of pressure sore after administering video assisted teaching programme. Through the study the researcher personally found that the video assisted teaching was effective in improving knowledge of care givers on prevention of pressure sore.

The third objective was to find out the association between the pretest level of knowledge with their selected demographic variables.

The present study reveals that there is a significant association between the pre test score and their selected demographic variables. The chi-square test was computed. With regards to pre test knowledge level and religion, the obtained chi-square value was 6.47 at df (2) was significant at 0.05 level. Regarding family members in health field, the calculated chi-square value was 4.23 at df (1) was significant at 0.05. Hence, the formulated research hypothesis, **H2 was accepted**. The other demographic variables such as gender, age, relation, education and family income shows no association with knowledge score.

Summary:

The study was conducted to evaluate the effectiveness of video assisted teaching on knowledge regarding prevention of pressure sore among care givers of immobilized patients in selected hospitals at Madurai district.

The objectives of the study were

- To assess the level of knowledge regarding prevention of pressure sore among care givers of immobilized patients.
- To assess the effectiveness of video assisted teaching programme on knowledge regarding prevention of pressure sore among care givers of immobilized patients.
- To find out the association between the pretest level of knowledge and their selected demographic variables.

The hypotheses of the study were

- **H_1:** There is a significant difference between pretest and posttest level of knowledge regarding prevention of pressure sore among care givers of immobilized patients.
- **H_2:** There is a significant association between pretest level of knowledge and their selected demographic variables of care givers of immobilized patients.

The first hypothesis shows significant difference between the pretest and posttest level of knowledge regarding prevention of pressure sore among care givers of immobilized patients.

In the pretest majority 47 (78%) of the care givers had inadequate knowledge level and 13 (22%) had moderate level of knowledge. Nobody scored adequate scored adequate (above 75%) marks in pre test. But in the post test, Majority 53 (88%) of the care givers had adequate knowledge level (above 75%) and only 7 (12%) of them scored moderate knowledge level (50-75%). The findings summarizes that, the video assisted teaching has significant beneficial effect in the level of knowledge among care givers. The post tests mean score was (25.5) high when compared to pre test mean (11.8) score of knowledge. The obtained t value (33.4) was greater than the table value at 0.05 level of

significance, which shows there is a significant difference between the pre test and post test level of knowledge regarding prevention of pressure sore among care givers of immobilized patients. Hence, the formulated research hypothesis **H_1 was accepted.**

The second hypothesis shows significant association between pretest level of knowledge and their selected demographic variables of care givers of immobilized patients.

The present study reveals that there is a significant association between the pre test score with their selected demographic variables, the chi-square test was computed. With regards to pre test knowledge level and religion, the obtained chi-square value was 6.47 at df (2) was significant at 0.05 level. Regarding family members in health field, the calculated chi-square value was 4.23 at df (1) was significant at 0.05. Hence, the formulated research hypothesis, **H2 was accepted**.

The study tested and proved the **hypotheses. H_1** that there is a significant improvement in the pre test and post test knowledge of care givers receives video assisted teaching. **H_2** that there is a significant relationship that exists between the knowledge score on prevention of pressure sore among care givers of immobilized patients

The study was based on Shuffle Beam's CIPP Programme Evaluation model, (1960). An evaluatory approach used to conduct the study. The research design adopted for the present study was pre-experimental in nature; purposive sampling technique was used for selection of samples. The data was collected for the period of 4 weeks from the care givers in selected hospitals at Madurai. The investigator rendered video assisted teaching on prevention of pressure sore. The post test was conducted after a week with the semi structured questionnaire.

Based on the objectives and hypotheses, the data were analyzed using both descriptive and inferential statistics.

Major findings of the study:

- Out of 60 care givers, regarding gender 23 (38%) were males, 37 (62%) were females.
- With regards to age no body was below 20 years, 8 (14%) were 21-30 years, 29 (48%) were 31-40 years, 23 (38%) were above 40.
- Regarding religion 25 (42%) was Hindu, 22 (36%) were Muslim, 13 (22%) were Christians.
- Regarding marital status 55 (92%) were married, 5 (8%) were unmarried.
- Regarding relationship with the patients 34 (56%) were spouse, 5 (8%) were children, 16 (28%) were grand children, 5 (8%) were others.
- Regarding educational status no illiterate, 10 (16%) were primary education, 32 (54%) were secondary education, 18 (30%) were graduates.
- Regarding family members in health field 10 (16%) were infield, 50 (84%) were not in field.
- Care givers pre test knowledge score on prevention of pressure sore, 47 (78%) of the care givers had inadequate knowledge level and 13 (22%) had moderate level of knowledge. Nobody scored adequate (above 75%) marks in pre test. But in the post test, Majority 53 (88%) of the care givers had adequate knowledge level (above 75%) and only 7 (12%) of them scored moderate knowledge level 50-75%). The post test mean score was (25.5) high when compared to pre test mean (11.8) score of knowledge. The obtained t value was greater than the table value at 0,05 level of significance, which shows there is a significant difference between the pre test and post test level of knowledge regarding prevention of pressure sore among care givers of immobilized patients. Hence, the formulated research hypothesis **H_1 was accepted.** This shows that there was a significant improvement in knowledge score on prevention of pressure sore after administering video assisted teaching programme.

- With regards to association of care givers knowledge, study reveals that there is a significant association between the pre test score with their selected demographic variables, the chi-square test was computed. With regards to pre test knowledge level and religion, the obtained chi-square value was 6.47 at df (2) was significant at 0.05 level. Regarding family members in health field, the calculated chi-square value was 4.23 at df (1) was significant at 0.05. Hence, the formulated research hypothesis, **H2 was accepted**. The other demographic variables such as gender, age, relation, education and family income shows no association with knowledge score.

Conclusion:

The above study depicts that, obtained value was greater than the table value which shows significant improvement in knowledge level. Hence the video assisted teaching was effective in improving the knowledge.

Implications

The present study has several implications in hospital settings, nursing practice, nursing education, nursing research and nursing administration.

Nursing practice

- Nurse must require adequate knowledge that would help to improve the knowledge of care givers of immobilized patients.
- Being the back bone of health team, nurse owes a great responsibility in educating the people regarding pressure sore and its prevention.

Nursing Education

- Video teaching can be used by the student to imparting knowledge on pressure ulcer and its prevention to the care givers in both urban and rural while giving health education.
- Nurse educator can prepare the students in order to give importance of teaching programme on prevention of pressure sore by using different teaching aids.

Nursing Research

The findings of the present study are helpful for the nursing professionals and nursing teachers to conduct further studies to find out the effectiveness of various methods of providing education on improving the knowledge regarding prevention of pressure sore among other peoples such as old age home helpers and rehabilitation helpers.

Nursing Administration

- Nurse administrator should take interest in motivating the nursing personnel to improve their professional knowledge, skill by attending the workshops, conference, seminars and training programme on prevention of pressure sore.
- Nurse administrator should arrange the regular in service education programme to the health care workers to giving skill in taking care of bedridden patients in order to reduce pressure sore in both hospital and community.

Recommendations

- A study can be conducted in assessing knowledge and practice of prevention of pressure sore.
- A comparative study can be done to assess the attitude and practice of prevention of pressure sore.
- A similar study can be undertaken in other districts of Tamilnadu.
- A similar study can be replicated with experimental and control group.
- A similar study can be conducted to evaluate the effectiveness of two different teaching methods.

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APPENDIX I

SECTION A

DEMOGRAPHIC DATA

Kindly read the following questions carefully and place a tick mark (✓) in the appropriate response.

Sample no:_____

SECTION A.1: DEMOGRAPHIC DATA OF THE CLIENT

1**. Gender**

(a) Male

(b) Female

2. Age in years

(a) Less than 20

(b) 21 – 30

(c) 31 - 40

(d)Above 40

3. Duration of imposed to bed

(a)< 30 days

(b) 1months – 3 months

(c) 4 months – 6 months

(d)>6 months

SECTION A.2: DEMOGRAPHIC DATA OF THE CARE GIVER

1**. Gender**

(a). Male

(b) Female

2. Age in years

(a) Less than 20

(b) 21 – 30

(c) 31 - 40

(d)Above 40

3. Religion

(a) Hindu

(b) Muslim

(c) Christian

4. Marital status of care giver

(a) Married

(b) Unmarried

5. Relation to the client

(a) Spouse

(b) Children

(c) Grand children

(d) Others

6. Educational status

(a) Illiterate

(b) Primary education

(c) Secondary education

(d) Graduate

7. Monthly income of the family

(a) Rs 5000- 10000 / month

(b) Rs10001 -15000 / month

(c) Rs 15001 – 20000 / month

(d) >Rs 20000/month

8. Family members in health field

(a) Yes

(b) No

SECTION B

STRUCTURED QUESTIONNAIRE

Instruction: Please read the following questions and tick (✓) the answer in the appropriate option

PART I: Questions related to information about skin and its function

1. Name the largest organ of the body?
   (a) Stomach
   (b) Skin
   (c) Intestine
   (d) Liver

2. Which is the top layer of the skin?
   (a) Dermis
   (b) Epidermis
   (c) Subcutaneous tissue
   (d) Mucus membrane

3. Among the following which is not the function of skin?
   (a) Protection
   (b) Sensation
   (c) Vitamin D preparation
   (d) Blood Distribution

PART II: **Questions related to general information about pressure sore**

4. What is meaning of pressure ulcer?
   (a) An ulcer developed due to pressure
   (b) A boil in the skin
   (c) A cut injury on the skin
   (d) A wart in the skin

5. What is the primary cause for developing pressure sore?

(a) Nutrition
(b) Temperature
(c) Pressure
(d) None of the above

6. Which patients are more prone to get pressure ulcer?

(a) Patients who are ambulant
(b) Patients on complete bed rest
(c) Patients who are frequently changing the position
(d) Patients who are using additional comfort device

7. Which one is the main cause produce friction between bed and patient?

(a) Comfortable bed
(b) Wrinkle bed
(c) Comfort position
(d) Wrinkle free bed

8. Which of the following area is more prone to get pressure ulcer?

(a) Over the muscles
(b) Over the bony prominences
(c) Over the soft tissues
(d) Over the tendon

9. Why patients with neurological problems are prone to get pressure sore?

(a) Due to lack of sensation
(b) Due to lack of blood supply
(c) Due to lack of nutrition
(d) Due to lack of hydration

10. How long will it take for an immobilized patient to get pressure sore?

(a) 1 to 2 hours
(b) 6 to 8 hours
(c) 24 hours
(d) 48 hours

11. What is the color change occur in fair skinned people in case of pressure sore?

(a) Skin will become yellow
(b)Skin will become black
(c) Skin will become red
(d)Skin will be edematous

12. What is the color change occur in dark skinned people in case of pressure sore?

(a) Skin will become yellow
(b)Skin will become red
(c) Skin will be pale
(d)Skin will become darkened

13. What is the color of dead tissue?

(a) Red
(b) Black
(c) White
(d) Yellow

PART III: Questions regarding information about prevention of pressure sore

14. Which is the first level of prevention of pressure sore?

(a) By early inspection of pressure prone areas
(b) Explanation about back care
(c) Lubrication of the skin
(d) Immobilization of the joints

15. What is the purpose of giving back care for the immobilized?

(a) It will keep the skin intact

(b) It will help in treating skin infection

(c) It is done to make the skin dry

(d) For aesthetic purpose

16. How will you give back care to the patients?

(a) Observe the back for any swelling

(b) Vigorous massaging of the back

(c) Cleaning, drying, gentile massaging and lubricating the skin

(d) Keep the area free from cloths

17. What is the purpose of back massage?

(a) To reduce blood circulation

(b) To remove dirt

(c) To reduce edema

(d) To increase blood circulation

18. Why repeated use of soap is contraindicated in back care?

(a) Soap become irritant and makes the skin dry

(b) Soap keeps the skin clean

(c) Soap lubricates the skin

(d) Soap provides a sense of wellbeing

19. How do you dry the skin after cleaning?

(a) Skin should be rubbed with the piece of cloth

(b) Skin should be patted dry

(c) Leave the skin to dry on its own

(d) Cover with the bed sheet

20. How often you will change the position to prevent pressure ulcer?

(a) Change the position 2 hourly

(b) Change in morning and evening

(c) Change the position 8 hourly

(d) Change the position 6 hourly

21. Where do you keep pillow in supine position?

(a) Under the shoulder, buttocks and calf muscles

(b) Under the ear, abdomen and knee

(c) Under the ear and between the knee

(d) Under the occipital, shoulder, elbow, back and lower legs

22. Where do you keep pillow in lateral position?

(a) Under the occipital, shoulder, elbow, back and lower legs

(b) Under the ear, cheek, shoulder, hip, lateral side of knee and ankle

(c) Under the ear and between the knee

(d) Under the shoulder, buttocks and calf muscles

23. Where do you keep air cushion in immobilized patients?

(a) Under the ear

(b) Under the occipital

(c)) Under the buttocks

(d) Under the knee

24. Why the soiled linen need to be changed immediately?

(a) To prevent sleep

(b) To reduce infection and friction

(c) To active movement

(d) To change the position

25. How will you make a wrinkle free bed?

(a) By good pulling and tuck the sheets properly

(b) By cleaning

(c) By losing the sheets

(d) By washing

26. What will happen if a foreign object left in the bed?

(a) Sheets will be damaged

(b) Nothing will happen

(c) Object will be damaged

(d) Object will injure the skin

27. What is the minimum requirement of fluid per day for an adult?

(a) 1- 2 liter

(b) 4 - 6liters

(c) 2 -3 liters

(d) 5- 7 liter

28. How do you offer bed pan to the patient?

(a) Pull the patient and provide bed pan

(b) Lift or turn the patient to one side and gently insert bed pan

(c) Slide the bed pan under the patient

(d) None of the above

29. What type of bed can be used to reduce the risk of pressure sore?

(a) Normal bed

(b) Cotton bed

(c) Water bed & Air bed

(d) Wooden bed

30. Which type of food the patient need to reduce pressure sore?

(a) Protein, calorie and vitamin rich diet

(b) Salt free diet

(c) High fat diet

(d) Protein less diet

APPENDIX II

பகுதி: 1

பொதுவிபரப்பட்டியல்

குறிப்பு: கீழ்காணும் கேள்விகளை வாசித்து தகுந்த பதிலளிக்கவும்

நோயாளியின் தகவல்

1. பாலினம்
   - அ) ஆண்
   - ஆ) பெண்

2. வயது வருடங்களில்
   - அ) 20க்கும் குறைவு
   - ஆ) 21 – 30
   - இ) 31 – 40
   - ஈ) 40க்கும் மேல்

3. படுக்கையில் இருக்கும் காலம்
   - அ) 30 நாட்களுக்கும் குறைவு
   - ஆ) 1 மாதம் முதல் 3 மாதங்கள்
   - இ) 4 மாதங்கள் முதல் 6 மாதங்கள்
   - ஈ) 6 மாதங்களுக்குமேல்

பராமரிப்புசெய்வோரின் தகவல்

1. பாலினம்
   - அ) ஆண்
   - ஆ) பெண்

2. வயது ஆண்டுகளில்
   - அ) 20க்கும் குறைவு
   - ஆ) 21 – 30
   - இ) 31 – 40
   - ஈ) 40க்கும் மேல்

3. மதம்

அ) இந்து

ஆ) கிறிஸ்தவன்

இ) முஸ்லீம்

4. திருமணத்தகவல்

அ) திருமணம் ஆனவர்

ஆ) திருமணம் ஆகாதவர்

5. நோயாளியோடு உள்ள உறவுமுறை

அ) வாழ்க்கைத் துணை

ஆ) குழந்தைகள்

இ) பேரக்குழந்தைகள்

ஈ) மற்றும்

6. பராமரிப்பு செய்வோரின் படிப்புநிலை

அ) படிக்காதவர்

ஆ) தொடக்கக் கல்வி

இ) உயர்நிலைக் கல்வி

ஈ) முதுநிலைமற்றும் பட்டதாரி

7. குடும்ப மாதவருமானம்

அ) 5000 –10000ரூபாய்

ஆ) 10001–15000ரூபாய்

இ) 15001 – 20000 ரூபாய்

ஈ) 20000 கும் மேல்

8. குடும்பத்தில் யாரேனும் மருத்துவதுறையில் உள்ளனரா?

அ) ஆம்

ஆ) இல்லை

பகுதி: 2

கீழே கொடுக்கப்பட்டுள்ளவற்றை வாசித்து சரியான பதிலை (✓) செய்யவும்

பாகம் 1: தோல் மற்றும் தோலின் வேலைகள் பற்றியதகவல்

1. உடம்பில் உள்ள பெரிய உறுப்பு எது?
   அ) வயிறு
   ஆ) தோல்
   இ) குடல்
   ஈ) ஈரல்

2. தோலின் வெளி உறை எது?
   அ) உள்புறத்தோல்
   ஆ) வெளிப்புறத்தோல்
   இ) கொழுப்புத்தோல்
   ஈ) வழவழப்புதோல்

3. கீழ்கண்டவற்றுள் எது தோலின் வேலை இல்லை?
   அ) பாதுகாத்தல்
   ஆ) உணாவு
   இ) வைட்டமின் டி தயாரித்தல்
   ஈ) இரத்தம் அனுப்புதல்

பாகம் 2 : படுக்கைபுண் பற்றியதகவல்கள்

4. படுக்கைபுண் என்றால் என்ன?
   அ) படுக்கைஅழுத்தத்தினால் உண்டாகும் புண்
   ஆ) தோலில் கொப்பளம் ஏற்படுதல்
   இ) தோலில் வெடிப்பு
   ஈ) தோலில் மரு

5. படுக்கைபுண் ஏற்படுவதற்கு முதற்மையான காரணம் என்ன?
   அ) ஊட்டச்சத்து
   ஆ) வெப்பமாற்றம்
   இ) அழுத்தம்
   ஈ) மேற்கண்டவைகளில் எதுவும் இல்லை

6. எந்த நோயாளிகளுக்கு படுக்கைபுண் எளிதில் ஏற்படும்?

அ) நடக்கும் நோயாளிகள்

ஆ) படுக்கையில் இருக்கும் நோயாளிகள்

இ) அடிக்கடி திரும்பி படுக்கும் நோயாளிகள்

ஈ) சௌகரிய முறைகளை உபயோகிக்கும் நோயாளிகள்

7. நோயாளியின் உடலில் உராய்வு ஏற்படுவதற்கான முக்கிய காரணம் என்ன?

அ) சௌகரியமான படுக்கை

ஆ) சுருக்கங்களோடு உள்ளபடுக்கை

இ) சுருக்கங்கள் இல்லாதபடுக்கை

ஈ) மேற்கூரியவற்றில் எதுவும் இல்லை

8. உடம்பின் எந்தபகுதியில் படுக்கைபுண் அதிகம் ஏற்படும்?

அ) தசைமேல்

ஆ) எலும்பு மேலோட்டமாக காணப்படும் பகுதியில்

இ) மிதமான திசுக்கள் மேல்

ஈ) ஜவ்வின் மேல்

9. நரம்பு செயல்பாடு பிரச்சைஉள்ளவர்களுக்கு படுக்கைபுண் ஏற்படுவதற்கான காரணம் என்ன?

அ) உணர்ச்சி இல்லாமல் இருத்தல்

ஆ) இரத்த ஓட்டம் இல்லாமல் இருத்தல்

இ) ஊட்டச்சத்து இல்லாமல் இருத்தல்

ஈ) நீர் சத்து இல்லாமல் இருத்தல்

10. அசையாமல் இருக்கும் நோயாளிகளுக்கு படுக்கைபுண் ஏற்பட எவ்வளவு நேரம் ஆகும்?

அ) 1 – 2 மணிநேரம்

ஆ) 6 – 8 மணிநேரம்

இ) 24 மணிநேரம்

ஈ) 48 மணிநேரம்

11. வெண்மையான நிறம் உடையதோல் உள்ளவர்களுக்கு படுக்கைபுண் ஏற்பட்டால் தோலின் நிறம் எப்படி இருக்கும்?

அ) தோல் மஞ்சளாகும்

ஆ) தோல் கருப்பாகும்

இ) தோல் சிவப்பாகும்

ஈ) தோல் வீக்கமானதாக இருக்கும்

12. கருப்பு நிறம் உடையதோல் உள்ளவர்களுக்கு படுக்கைபுண் ஏற்பட்டால் தோலின் நிறம் எப்படி இருக்கும்?

அ) தோல் மஞ்சளாகும்

ஆ) தோல் சிவப்பாகும்

இ) தோல்வெளுத்து காணப்படும்

ஈ) தோல் கருப்பாகும்

13. இறந்த திசுவின் நிறம் எப்படி இருக்கும்?

அ) சிவப்பு

ஆ) கருப்பு

இ) வெள்ளை

ஈ) மஞ்சள்

பாகம் 3: படுக்கைபுண் தடுப்புமுறைகள் பற்றியதகவல்

14. முதல் கட்டமாக படுக்கைபுண் தடுக்கும் முறை எது?

அ) படுக்கைபுண் ஏற்படக்கூடிய இடங்களை கவனமாககவனித்தல்

ஆ) முதுகு பராமரிப்புபற்றியவிளக்கம் கொடுத்தல்

இ) தோலை வழவழப்பாக வைத்திருத்தல்

ஈ) மூட்டுக்களைஅசையாமல் வைத்தல்

15. படுக்கையில் அசையாமல் இருப்பவர்களுக்கு முதுகு பராமரிப்பு எதற்காக?

அ) தோலைபாதுகாக்க

ஆ) தோல் வியாதியை குணமாக்க

இ) தோலை வறட்சியாக வைத்திருக்க

ஈ) அழகுக்காக

16. முதுகு பராமரிப்பு எப்படி கொடுக்க வேண்டும்?

அ) ஏதாவதுவீக்கும் இருக்கிறதா என்று பார்த்தல்

ஆ) அழுத்தி மஜாஜ் கொடுத்தல்

இ) துடைத்து காயவைத்து மஜாஜ் கொடுத்து வழவழப்பாகவைத்திருத்தல்

ஈ) முதுகில் துணி இல்லாமல் பார்த்துகொள்ளுதல்

17. முதுகு மஜாஜ் செய்வதன் பயன என்ன?

அ) இரத்த ஓட்டத்தை குறைக்க உதவுகிறது

ஆ) அழுக்கை அகற்ற உதவுகிறது

இ) வீக்கத்தை குறைக்க உதவுகிறது

இ) இரத்தஓட்டத்தை அதிகரிக்க உதவுகிறது.

18. ஏன் முதுகு பராமரிப்பிற்கு சோப்பை அடிக்கடிபயன்படுத்த கூடாது?

அ) சோப்பு ஒரு எரிச்சலூட்டும் காரணிமற்றும் தோலை வறட்சியாக்கும்

ஆ) சோப்பு தோலை சுத்தமாகவைக்க உதவும்

இ) தோலை வழவழப்பை ஏற்படுத்தும்

ஈ) சோப்பு மந்தமான உணர்ச்சியை தரும

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19. துடைத்தபின் தோலை எவ்வாறு காயவைக்க வேண்டும்?

அ) துணிவைத்து அழுத்தி துடைக்க வேண்டும்

ஆ) துணிவைத்து ஒத்தி எடுக்க வேண்டும்

இ) தானாக காயவிட வேண்டும்

ஈ) உலர்ப்பானைவைத்து காயவைக்க வேண்டும்

20. படுக்கை புண் ஏற்படுவதை தடுக்க நோயாளியை எத்தனை மணிக்கு ஒருமுறை படுக்கையில் மாற்றி படுக்கவைக்க வேண்டும்?

அ) இரண்டு மணிக்கு ஒருமுறை

ஆ) காலைமற்றும் இரவுநேரத்தில் மட்டும்

இ) எட்டுமணிக்கு ஒருமுறை

ஈ) ஆறு மணிக்கு ஒருமுறை

21. மல்லார்ந்து படுக்கும் நிலையில் தலையணையை எங்குவைக்க வேண்டும்?

அ) தோல்பட்டைக்குகீழ் அமரும் இடத்திற்குகீழ் முழங்காலுக்குகீழ்

ஆ) காதுக்குகீழே வயிற்றுக்குகீழே முழங்கைக்குகீழே

இ) காதுக்குகீழே மற்றும் முழங்கால்களுக்கு இடையில்

ஈ) பின்புறத்தலை தோள்பட்டை முழங்கை முதுகு கீழ்கால் ஆகியவற்றுக்குகீழ்

22. ஒரு புறமாக சாய்ந்து படுத்திருக்கும் நோயாளிகளுக்கு தலையணையை எங்கு வைக்கவேண்டும்?

அ) பின்புறத்தலை தோள்பட்டை முழங்கை முதுகு மற்றும் கீழ்கால்

ஆ) ஒருபுறமாக உள்ள காது கண்ணம் தோள்பட்டை இடுப்புஎலும்பு முழங்கால் மற்றும் கணுக்காலின் கீழ்

இ) காதுக்குகீழ் மற்றும் முழங்கால்களுக்கு இடையில்

ஈ) தோள்பட்டை அமரும் இடம் முழங்காழ் ஆகியவற்றுக்கு கீழ்

23. காற்று அடைத்த உறையை படுக்கையில் இருக்கும் நோயாளிகளுக்கு எங்கு வைக்க வேண்டும்?

அ) காதுக்குகீழ்

ஆ) பின்புறத்தலையில்

இ) உட்காரும் பகுதிக்குஅடியில்

ஈ)முழங்கால்களுக்குஅடியில்

24. நோயாளியின் படுக்கை விரிப்பு ஈரமாகிவிட்டால் உடனடியாக ஏன் படுக்கை மாற்றப்படவேண்டும்?

அ) உறக்கத்தைதடுக்க

ஆ) நோய் தொற்றும் மற்றும் உராய்வைதடுக்க

இ) நன்றாகஅசைவதற்கு

ஈ) படுக்கைமுறையைமாற்றுவதற்கு

25. சுருக்கம் இல்லாத படுக்கை விரிப்பை எப்படி இட வேண்டும்?

அ) நன்றாக விரிப்பை இழுத்துமெத்தையின் கீழ் சொருகுவதன் மூலமாக

ஆ) துடைப்பதன் மூலமாக

இ) இலகுவாக விரிப்பை அமைப்பதன் மூலமாக

ஈ) துவைப்பதன் மூலமாக

26. தேவை இல்லாத பொருட்கள் படுக்கையில் இருந்தால் என்னஆகும்?

அ) அந்த பொருள் தோலை அழுத்தி சேதப்படுத்தும்

ஆ) ஒன்றும் ஆகாது

இ) பொருள் சேதப்படும்

ஈ) படுக்கை விரிப்பு சேதமாகும்

27. ஒருமனிதன் ஒருநாளைக்கு தோராயமாக எவ்வளவு தண்ணீர் பருகவேண்டும்?

அ) 1 – 2 லிட்டர்

ஆ) 4-6 லிட்டர்

இ) 2-3 லிட்டர்

ஈ) 5-7 லிட்டா

28. படுக்கையில் மலம் கழிக்கும் சாதனம் எப்படி வைக்கப்பட வேண்டும்?

அ) நோயாளியைஒருபுறமாகதள்ளிகொடுக்கவேண்டும்

ஆ) நோயாளியை தூக்க ிஅல்லது ஒரு புறமாக சாய்த்து பின்பு மென்மையாக வைக்க வேண்டும்

இ) கால்கள் வழியாககொடுக்கவேண்டும்

ஈ) மேற்கண்டவைகளில் எதுவும் இல்லை

29. எந்த வகையான படுக்கைகளை உபயோகித்தால் படுக்கை புண்களை தவிர்க்கலாம்

அ) சாதாரணபடுக்கை

ஆ) பஞ்சுபடுக்கை

இ) தண்ணீர் மற்றும் காற்றுபடுக்கை

ஈ) மரப்படுக்கை

30. படுக்கைபுண் வருவதை தடுக்க எந்த வகையான உணவு பொருட்களை கொடுக்க வேண்டும்?

அ) புரதம் மாவுச்சத்து மற்றும் வைட்டமின் நிறைந்தஉணவு

ஆ) உப்பில்லாத உணவு

இ) கொழுப்பு நிறைந்த உணவு

ஈ) புரதம் குறைவான உணவு

ANSWER KEY

Answers for the above semi structured questionnaire

Question No	Key answer
1	B
2	B
3	D
4	A
5	C
6	B
7	B
8	B
9	A
10	A
11	C
12	D
13	B
14	A
15	A
16	C
17	D
18	A
19	B
20	A
21	D
22	B
23	C
24	B
25	A
26	A
27	C
28	B
29	C
30	A

APPENDIX III

VIDEO ASSISTED TEACHING PROGRAMME

LESSON PLAN ON PREVENTION OF PRESSURE SORE

Guided by:

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Principal

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Prepared by:

Miss.I.Mesiya Femina.

II nd year M.Sc Nursing

RASS Academy college of Nursing, Poovanthi.

Subject	**:** Prevention of pressure sore among immobilized
Group	**:** Care givers
Place	**:** Neethi Arasu Neurological hospital
No of care givers	**:** 60
Duration	**:** 20 Minutes
Method of Teaching	**:** Lecture cum Discussion
Instructional Aids	**:** LCD

GENTRAL OBJECTIVE:

At the end of the teaching, the care givers will acquire in depth knowledge regarding prevention of pressure sore among immobilized patients and develop positive attitudes and skills towards prevention of pressure sore and apply this knowledge in practice.

SPECIFIC OBJECTIVE:

The care givers will be able to,

- Discuss the skin and its function
- Define pressure sore
- Identify the causes of pressure sore
- Mention the common sites of pressure sore
- Elaborate the pathogenesis of pressure sore
- Explain the stages of pressure sore
- Discuss the topical skin care for immobilized patients
- Demonstrate back care procedure for immobilized patients
- Explain positioning and comfort devices for immobilized patients

Explain the importance of hydration and nutrition of immobilized patients

TIME	SPECIFIC OBJECTIVE	CONTENT	TEACHER LEARNER ACTIVITY	AUDIO VISUAL AIDS	EVALUATION
1 min	Introduce the topic	**INTRODUCTION;** A mobile person generally turns approximately once every 10-12 minutes while sleeping. This action provides for healthy blood circulation, stimulation of body organs and movement of body fluids. When a person becomes temporarily or permanently immobilized, however, the blood supply to that part of the body that is under pressure is restricted. If that pressure is not regularly relieved, and the blood supply restored, the affected tissue dies and sloughs off and a pressure or decubitus ulcer (i.e. bedsore) begins to form.	T- Introducing L- Listening	Video	
1 min	Discuss the skin and its functions	**SKIN:** The skin, the body's largest organ, composes one sixth of the total body weight. It is the protective barrier against disease causing organism, a sensory organ for pain, temperature, for touch and can synthesis vitamin D. injury to the skin poses risks to safety and triggers a complex healing response. It is one of the most responsibilities of care givers to monitor skin changes while they are in the position of giving care in hospital and home settings to prevent further complications.	T- Introducing L- Listening	Video	

		The skin has 3 layers. There are three main layers of the skin. • Epidermis is the top layer of the skin, the part of the skin we see. • Dermis is the second layer of skin. It's much thicker. • Subcutaneous fat is the bottom layer **Epidermis** The epidermis, is super thin on some parts of your body (eyelids) and thicker on others (the bottoms of feet). The epidermis is the layer of skin in charge of • **Making new skin cells:** This happens at the bottom of the epidermis. The skin cells travel up to the top layer and flake off, about a month after they form. • **Giving skin its color:** The epidermis makes melanin, which is what gives skin its color. • **Protecting body:** The epidermis has special cells that are part of immune system and help you stay healthy. **Dermis** A lot happens in the next layer, the dermis. The jobs of the dermis include: • **Making sweat:** There are little pockets called sweat glands in dermis. They make sweat, which goes through little tubes and comes out of holes called pores. Sweating keeps cool and helps to get rid of bad stuff our body doesn't need.			

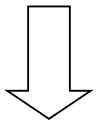
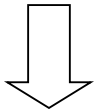
		• **Helping you feel things:** Nerve endings in the dermis help to feel things. They send signals to our brain, so we know how something feels if it hurts. • **Growing hair:** The dermis is where we'll find the root of each tiny little hair on your skin. Each root attaches to a tiny little muscle. • **Making oil:** Another type of little pocket, or gland, in your skin makes oil. The oil keeps your skin soft, smooth and waterproof. Sometimes the glands make too much oil and give pimples. • **Thermal control:** – regulates body temperature • **Waterproofing**: Contains lipids to prevent drying out • **Excretion of waste:** Urea and uric acid secreted in sweat • **Makes vitamin D**: Modifies cholesterol molecules in skin and converts it to vitamin D **Subcutaneous fat** The bottom layer of skin is the subcutaneous fat layer. This layer plays an important role in our body by, • **Attaching the dermis to muscles and bones:** This layer has a special connecting tissue that attaches the dermis to muscles and bones. • **Helping the blood vessels and nerve cells:** Blood vessels and nerve cells that start in the dermis get bigger and go to the rest of our body from here.			

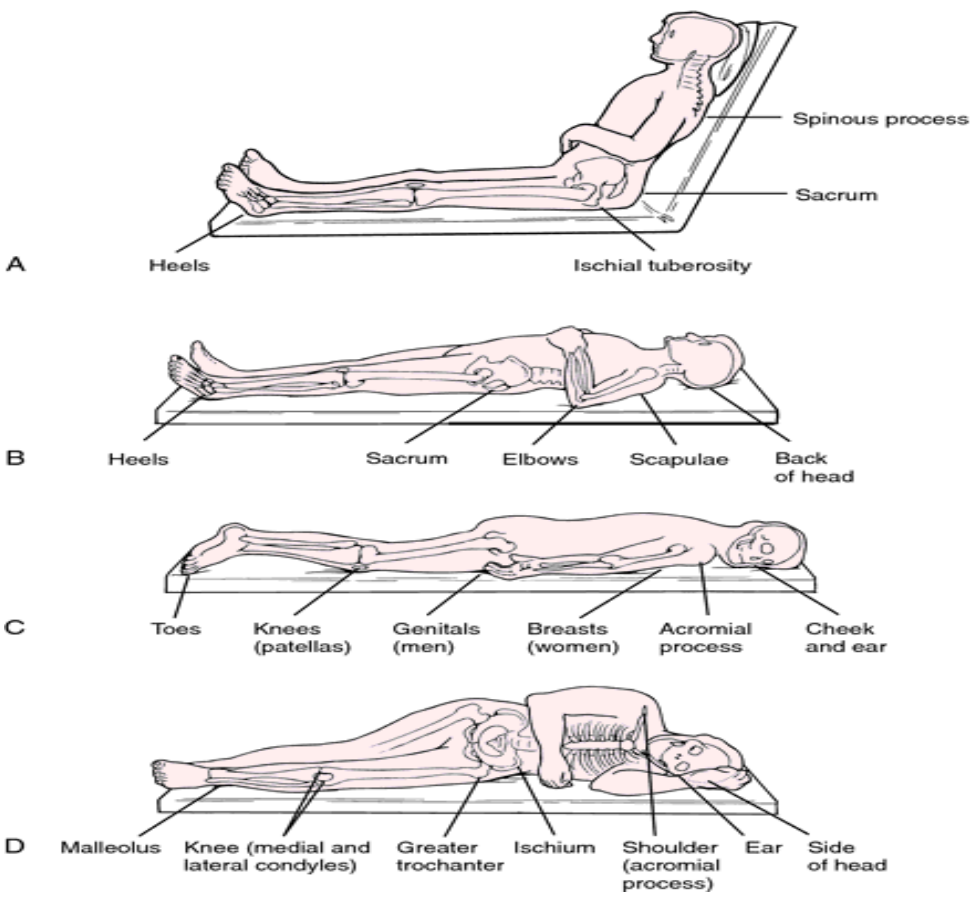
	Difine the pressure sore Identify the causes of pressure sore	• **Controlling your body temperature:** The subcutaneous fat is the layer that helps keep our body from getting too warm or too cold. • **Storing your fat:** This fat pads our muscles and bones and protects them from bumps and falls. **DEFINITION:** A pressure sore is defined as localized areas of tissues are compressed between a bony prominence and an external surface for a prolonged period of time. _ NPUAP (National pressure ulcer advisory panal,1995) Bed sores also called pressure sores or pressure ulcers, are injury to skin and underlying tissue resulting from prolonged pressure on the skin. _ American Academy of Dermatology. **CAUSES OF PRESSURE SORE**: **1. Pressure:** Pressure is considered to be the primary cause of pressure sore. Force applied to soft tissue between hard surface and bony prominence. When skin and the underlying tissues are trapped between bone and a surface such as a wheelchair or bed, blood flow is restricted. This deprives tissue of oxygen and other nutrients will lead to tissue death.	T- Teaching L- Listening T- Teaching L- Listening		

		2. Friction: Resistance of one body sliding or rolling over another. Making skin more susceptible to pressure sores. Friction of the skin with a rough or hard surface can cause tissue damage, contact with the rough surfaces of th bed wrinkles on the bed clothes, hard surfaces of the plaster casts and splints, presence of foreign bodies on the bed, careless handling of bed pan, pulling sheets under the clients are frequent cause of friction which cause tissue damage. **3. Shear:** This occurs when skin moves in one direction, and the underlying bone moves in another. Sliding down in a bed or chair or raising the head of bed more than 30 degrees is especially likely to cause shearing, which stretches and tears cell walls and tiny blood vessels. Especially affected are areas such as tailbone where skin is already thin and fragile. **4. Strain:** Tissue deformation in response to pressure. **RISK FACTORS:** • **Age.** Older adults tend to have thinner skin, making them more susceptible to damage from minor pressure. They have less natural cushioning over their bones. And poor nutrition, delays wound healing. • **Lack of pain perception.** All neurological problems including Spinal cord injuries cause a loss of sensation. This will lead to bedsore formation.			

		• **Natural thinness or weight loss.** Muscle atrophy and wasting are common in people living with paralysis. If you lose fat and muscle there is no cushion over your bones**.** • **Malnutrition.** Pressure sores develops if we have a poor diet, especially one deficient in protein, zinc and vitamin C. • **Urinary or fecal incontinence.** Problems with bladder control can greatly increase risk of pressure sores because skin stays moist, making it more likely to break down. And bacteria from fecal matter not only can cause serious local infections but also can lead to life-threatening systemic complications such as sepsis, gangrene and, rarely, necrotizing fasciitis, a severe and rapidly spreading infection. • **Other medical conditions.** Diabetes and vascular disease affect circulation that may cause tissue damage. • **Smoking.** Smokers tend to develop more severe wounds and heal more slowly, mainly because nicotine impairs circulation and reduces the amount of oxygen in blood. • **Decreased mental awareness.** People whose mental awareness is lessened by disease, trauma or medications are often less able to take the actions needed to prevent or care for pressure sores. • Altered level of consciousness • Chronic systemic illness • Fracture patients			

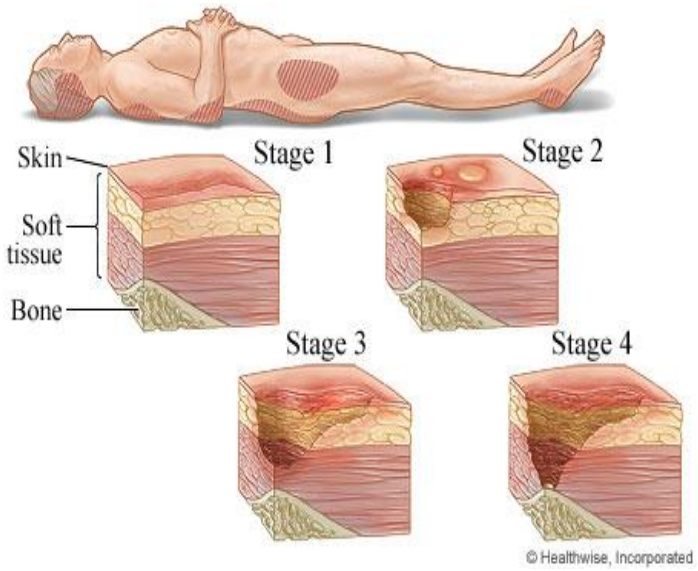
	Elaborate the pathogenesis of pressure sore	• Obese clients • Sedated clients • Paralyzed clients • Edematous clients • Agitated clients in restraints • Surgical clients with limited movement **PATHOGENESIS** Prolong weight bearing and mechanical shear forces act on areas of soft tissue overlying bony prominence ⇩ when this pressure exceeds normal capillary perfusion pressure (32 mm Hg) ⇩ occlusion & tearing of small blood vessels ⇩ reduced tissue perfusion			

	Mention the common sites of pressure sore	 ischemic necrosis  Pressure sore **COMMON SITES OF PRESSURE SORE:** Pressure points are those that bear weight, so that the skin over them is subject to pressure. This may happen more frequently over the bony prominences of the body where there is no rich blood supply or nourishment and also there is a thin layer of skin. Pressure points according to position, 1. **In sitting position**- Back of the head, shoulder, buttocks, below the knee and heel. 2. **In supine** -- Back of the head (occipital), scapula, sacral region, elbow and heels. 3. **In prone** – Ears, cheek, acromian process, breast (in females), genitalia (in males), knees and toes. 4. **In side lateral** – Ears, acromian process of shoulder, ribs, greater trochanter of the hip, medial and lateral condycles of the knee and malleolus of the ankle joint.			


A
Spinous process
Sacrum
Heels
Ischial tuberosity
B
Heels
Sacrum
Elbows
Scapulae
Back of head
C
Toes
Knees (patellas)
Genitals (men)
Breasts (women)
Acromial process
Cheek and ear
D
Malleolus
Knee (medial and lateral condyles)
Greater trochanter
Ischium
Shoulder (acromial process)
Ear
Side of head

	Explain the stages of pressure sore	**DURATION FOR THE OCCARNCE OF PRESSURE SORE:** Pressure ulcers can develop very quickly and depends on patient factors such as nutritional status as well. With the risk factors, the possibility of a bed sore can occur in as little as 20 minutes. Bedsores can occur very quickly especially in elderly patients who are immobilized. It is crucial that should be rotated and pressure taken off of the hip at least every 2 hours. In total immobility, even for as little as 12 hours, can cause bedsore. **STAGES OF PRESSURE SORE:** **Stage I** The beginning stage of a pressure sore has the following characteristics: ➢ The skin is not broken. ➢ The skin appears red on people with lighter skin color, and the skin doesn't briefly lighten (blanch) when touched. ➢ On people with darker skin, the skin may more darken, and it doesn't blanch when touched. ➢ The site may be tender, painful, firm, soft, warm or cool compared with the surrounding skin.			

		Stage II ➢ The outer layer of skin (epidermis) and part of the underlying layer of skin (dermis) is damaged or lost. ➢ The wound may be shallow and pinkish or red. ➢ The wound may look like a fluid-filled blister or a ruptured blister. **Stage III** At stage III, the ulcer is a deep wound: ➢ The loss of skin usually exposes some fat. ➢ The ulcer looks crater-like. ➢ The bottom of the wound may have some yellowish dead tissue. ➢ The damage may extend beyond the primary wound below layers of healthy skin. **Stage IV** A stage IV ulcer shows large-scale loss of tissue: ➢ The wound may expose muscle, bone or tendons. ➢ The bottom of the wound likely contains dead tissue that's black and crusty. ➢ The damage often extends beyond the primary wound below layers of healthy skin.			



Unstageable

A pressure ulcer is considered unstageable if its surface is covered with yellow, brown, black or dead tissue. It's not possible to see how deep the wound is.

Deep tissue injury

A deep tissue injury may have the following characteristics:

- The skin is purple or maroon but the skin is not broken.
- A blood-filled blister is present.
- The area is painful, firm or mushy.

	Explain the topical skin care for immobilized patients	➢ The area is warm or cool compared with the surrounding skin. ➢ In people with darker skin, a shiny patch or a change in skin tone may develop. **PREVENTION OF PRESSURE SORE:** The first step in prevention is to assess the client's risk factors for pressure ulcer development. Early identification of clients at risk and their risk factors aids in prevention of pressure ulcer **TOPICAL SKIN CARE :** ✓ Perform frequent skin assessment. It should be done at a minimum on a once a day basis. ✓ Keep the skin clean and dry. ✓ All bony prominences should be taken care specially. ✓ Frequent use of soap and hot water are avoided. Soap and alcohol based lotions will cause drying and leave an alkaline residue. The alkaline residue discourages the growth of normal skin bacteria. Thus promoting the over growth of opportunistic bacteria, which can then enter on open wound. ✓ After the skin is cleansed and completely dried, moisturizer should be applied to keep the epidermis well lubricated but not over saturated. Corn starch is a dry lubricant can help to reduce friction.			

	Demonstrate the back care procedure for immobilized patients	**BACK CARE:** ✓ The clients who are prone to bed sore must have their back treated 2 hourly or more frequently. Regular bathing and massage of the back, buttocks and upper arms promotes patient relaxation and allows assessment of skin condition. Massage cause cutaneous vasodilatation, helping to prevent pressure ulcer caused by prolonged pressure on bony prominences or by perspiration. Back care is contraindicated in patients with rib fractures, surgical incision or other recent traumatic injury to the back. **ARTICALS NEEDED:** **Articles** — **Rationale** Basin — To keep water Soap — To clean the skin Bath blanket — To cover the patient Bath towel — To dry the skin Wash cloth — To apply the soap and water Lotion or oil — To make the skin smooth			

		PROCEDURE: ➢ Arrange all articles near to the bed side. ➢ Place the patient in prone or side lateral position. ➢ Protect the bed with mackintosh or water proof cover. ➢ Wash hands ➢ Expose the back of the patient. ➢ Fold the wash cloth around the hand to from a mitt. ➢ Using a long firm strokes, bath the patient back beginning at the neck and shoulders and moving downward to the buttocks, ➢ If need apply soap in the same way and clean the soap with the same technique. ➢ Dry the skin padding with the smooth towel. ➢ Apply the lotion to the patients back, using long firm stroke. **MASSAGE:** ✓ Massaging helps to increase the blood supply to the area and prevent bed sore. Stroking with both hands from buttocks towards shoulders and back again to buttocks, completes one round. 3 strokes are commonly used. Perform each stroke at least 6 times before moving on the next			

		Effleurage; using the palm, stroke from the buttocks up to the shoulders, over the upper arms, and back to the buttocks. Use slightly less pressure on the down ward strokes. **Friction;** use circular thumb strokes to move from buttocks to shoulders, then using the smooth stroke, return to the buttocks. **Petrissage;** using the thumb to oppose fingers, knead and stroke half the back and upper arms, starting at the buttocks and moving toward the shoulder. Then knead and stroke the other half of the back rhythmically alternating the hands. Attending the other pressure points like iliac crest, ankles, heels, elbows can carried out with the same technique. Finish massage by using long stroke, and blot and excess lotion from the patients back with a towel. Return the bed to the original position and make the patient comfortable. Empty and clean the basin. **POSITIONING:**			
	Explain positioning and comfort devices for immobilized patients	Positioning interventions are designed to reduce pressure and shearing force to the skin. Elevating the head of the bed 30 degrees or less will decrease the force. The immobilized patient's position should be changed according to the activity level, perceptual ability and daily routines. A standard turning interval of 2 hours may prevent pressure sore. Use a regular schedule of turning at			

		night. When turning and moving in bed, lift rather than slide across sheets. **Moving the immobile client up in the bed with draw sheet or pull sheet:** ► Place draw sheet under client by turning side to side. Have sheet extent from shoulders to thighs. Return client to supine. ► Position one person at each side of client. ► Grasp draw sheet or pull sheet firmly near to the client. ► Place feet apart with forward- backward stance. Flex knees and hips. Shift weight from front to back leg, and move client and draw sheet or pull sheet to desired position in bed. ► Realign client in correct body alignment. **Position client in supported fowlers position:** ► Elevate head of the bed 45 to 60 degree. ► Rest head against mattress or on small pillow. ► Use pillow to support arms and hands if client does not have voluntary control or use of hands and arms. ► Position pillow at lower back. ► Place small pillow or roll under thigh. ► Place small pillow or roll under ankles. ► Place air cushion under the buttocks.			

		► Position head on small pillow with chin slightly forward. ► Support feet in dorsiflextion with firm pillow or foot board. **Position client in supine position:** ► Be sure client in comfortable on back with head of the bed flat. ► Place small rolled towel under lumbar area of back. ► Place pillow under shoulder, neck or head. ► Place trochander roll or sand bags parallel to lateral surface of clients thighs. ► Place small pillow or roll under ankles to elevate heel. ► Place foot board or firm pillow against bottom of clients feet. ► Place pillow under pronated fore arms, keeping under arms parallel to clients body. ► Place hands roll in clients hands. **Position client in prone position:** ► With client supine, roll client over arm positioned close to body, with elbow straight and hand under hip, position on abdomen in center of bed. ► Turn clients head to one side and support head with small pillow.			

		► Place small pillow under client's abdomen below the level of diaphragm. ► Support arms in flexed position level at shoulders. ► Support lower legs with pillows to elevate toes. **Position client in lateral position:** ► Lower the head of the bed completely or as low as client can tolerate. ► Position client to side of the bed. ► Prepare to turn client onto side. Flex client's knee that will not be next to mattress. Place one hand on client's hip and one hand on clients shoulder. ► Roll client onto side toward you. ► Place pillow under clients head and neck. ► Bring shoulder blade forward. ► Position both arms in slightly flexed position. Upper arm is supported by pillow level with shoulder, other arm by mattress. ► Place tuck back pillow behind clients back. ► Place pillow under semi flexed upper leg level at hip from groin to foot. **BED MAKING:** ✓ Always give safe and comfortable bed. ✓ Change soiled linens immediately. Because soiled linen may increase			

		the chance of infection and friction. ✓ Provide wrinkle free bed by good spreading and pull extra sheets make it tuck under mattress. ✓ Frequently check the sheets for wrinkles after positioning or after each procedure. ✓ Inspect for foreign objects like needle syringes and food waste left in the bed because it will injury the patient and increase the friction which may cause bed sore. ✓ Keep all the patients tubing like Nasal gastric tube, urine tube, oxygen mask tube above the patient body to prevent friction. ✓ Wear properly fitted clothing, lose clothing will make wrinkles and friction. **Special beds;** ► Special beds can be used to reduce friction. ► Normal mattress develops continuous pressure on vulnerable pressure points and thus the patient is prone to have bed sore. ► Water bed with its unique wave form design distributes the weight evenly all over the mattress to retrain the muscle of the patient and the cooling effect of water also helps in the prevention of bed sores. ► Pneumatic beds are using ump system thus by giving movements to body parts.			

	Explain the importance of hydration and nutrition of immobilized patients	**HYDRATION** ✓ It is important to recognize that hydration needs and realize the hydration plays a critical role in general well being and reducing bed sore among patients in hospital setting. ✓ The patient who are bedridden, should meet their fluid requirement of 2 – 3 liter per day is enough to maintain the normal skin integrity. **NUTRITION** For clients who are weakened or debilitated by illness, nutritional therapy is especially important. Normal wound healing requires proper nutrition. Adequate intake of protein and calories is important. Protein, zinc, iron and adequate calories are important for wound healing and prevention of pressure sore. **ELIMINATION:** People who have problems controlling their urine or bowels (called incontinence) are at risk of skin problems around the buttocks, hips, genitals, and the area between the pelvis and rectum (perineum).Excess moisture in these areas makes skin problems such as redness, peeling, irritation, and yeast infections likely. Using diapers and other products can make skin problems			

		worse. Although they may keep bedding and clothing cleaner, these products allow urine or stool to be in constant contact with the skin. Over time, the skin breaks down. Special care must be taken to keep the skin clean and dry. If patient is using the bed pan for the elimination purpose, provide bed pan either by lifting the patient and gently insert the bed pan under the buttocks or by turning the patient one side and insert gently. While removing the bed pan care should be taken to prevent the injury. **SUMMARY:** So far, we discussed about the skin and its function ,definition of pressure sore, stages of pressure sore, causes, common sites, pathogenesis, stages, topical skin care, back care, positioning with comfort devices, bed making, hydration, nutrition and complications of pressure sore. **CONCLUSION:** Once a bed sore develops, it is often very slow to heal. Untreated pressure sores can become gangrenous and seriously infected. Always prevention is better than cure, so early identification of risk factors of bed sore can be done and bed sore can be prevented.			

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APPENDIX IV

படுக்கை புண் ஏற்படுவதை தடுக்கும் வழிமுறைகள்

முன்னுரை:

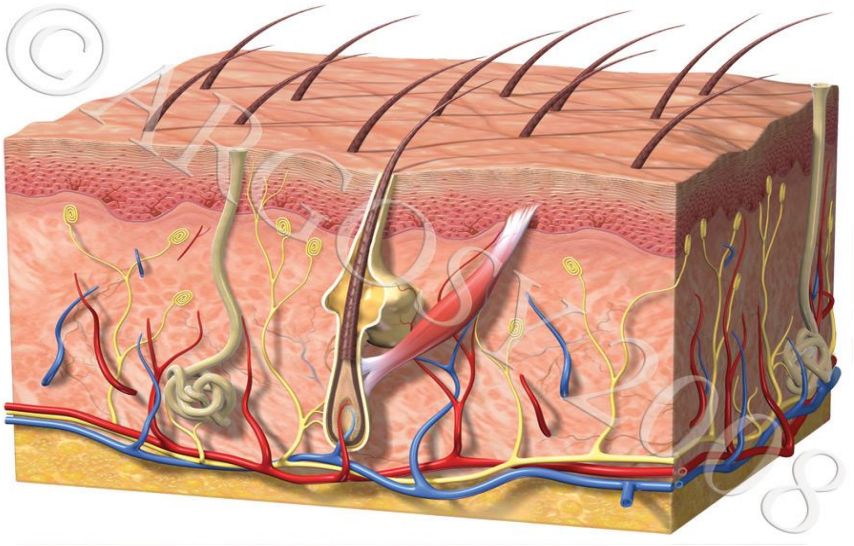
சாதரணமாக ஒரு மனிதன் தூங்கும் போது 10-12 நிமிடங்களுக்கு ஒரு முறை அசைக்கிறான். இந்த அசைவானது இரத்த ஓட்டத்தை அதிகரித்து உடல் உறுப்புகளை தூண்டி மற்றும் செல்களில் உள்ள திரவ மாற்றம் ஏற்பட காரணமாக உள்ளது. நிரந்தரமாகவோ அல்லது தற்காலிகமாகவோ உடலானது அசையாமல் ஒரே நிலையில் நீண்ட நேரம் இருக்கும் போது உடல் உறுப்புகளுக்கு செல்லும் இரத்தஓட்டம் குறைவதோடு உடல் உறுப்புக்கள் படுக்கையில் ஒட்டி இருக்கும் தோல் பகுதியில் அதிக அழுத்தத்தை ஏற்படுத்துகிறது. அந்த அழுத்தம் தொடர்ந்து விடுபடாத நிலையில் இரத்த ஓட்டம் குறைந்து திசுக்கள் பாதிப்பிற்கு உள்ளாகிறது. இவ்வாறு படுக்கை புண் ஏற்படுகிறது..

தோல் மற்றும் அதன் செயல்பாடுகள்:

நமது உடலிலேயே உள்ள பெரிய உறுப்பு தோல். இது நமது உடல் எடையில் 6ல் ஒரு பங்கு வகிக்கிறது. இது நமது பாதுகாப்பு உறுப்பாகவும் தொடு மற்றும் வலி உணர் உறுப்பாகவும் செயல்படுகிறது.

தோல் மூன்று உறைகளை கொண்டுள்ளது.

1. வெளிப்புறதோல்
2. உள்புறதோல்
3. கொழுப்புதோல்



வெளிப்புறத்தோல்:

இது தோலின் மேல் உறையாகும். இதை நம் கண்களால் பார்க்கிறோம். இது ஒரு மெல்லிய உறையாகும்.

வெளிப்புறதோலின் வேலைகள்:

- புதுத்தோலை உருவாக்குதல்: சில தினங்களுக்கு ஒருமுறை தோலானது புதுபிக்கப்படுகிறது.

- நிறத்தை கொடுக்கிறது: தோலில் உள்ள மெலனின் எனப்படும் நிறமியானது இந்த வேலையை செய்கிறது.
- உடலை பாதுகாகிறது: தோலில் உள்ள நல்ல நுண்கிருமிகள் உடலை பாதுகாக்கிறது.

<u>உட்புறதோல்</u>:

இது வெளிப்புற தோலிற்கு அடியில் உள்ளது.

<u>உட்புறத் தோலின் வேலைகள்</u> :

- வியர்வையை உருவாக்குகிறது
- உடல் வெப்ப நிலையை சமன் செய்கிறது
- தொடு மற்றும் வலி உணர்வை கொடுக்கிறது
- மயிர் கால்கள் எந்த உறைலிருந்து உருவாகிறது
- எண்ணெய் பசையை உருவாக்கி தோலை வளு வளுப்பாக்கவும் மற்றும் வறட்சியை தடுக்கவும் உதவுகிறது .
- தேவை இல்லாத உப்பு பொருள் உடலில் இருந்து வெளியேற உதவுகிறது

<u>கொழுப்பு தோல் :</u>

இது அடிப்புறத்தில் உள்ள உறையாகும் .

<u>கொழுப்பு தோலின் வேலைகள்</u> :

இது உட்புறத்தோலை தசை மற்றும் எலும்புடன் இணைக்கிறது .

- உடல் வெப்பநிலையை பாதுகாக்க உதவுகிறது .
- கொழுப்பு சத்தை சேமிக்க உதவுகிறது .

<u>படுக்கைப்புண்</u>

<u>வரையறை :</u>

தோலில் உள்ள திசுக்களானது, உடலின் எலும்பு மேலோட்டமாக தெரியும் பகுதிக்கும்> வெளிப்புற பரப்பிற்கும் இடையே நீண்ட காலமாக அழுத்தபடுவதால் உண்டாகும் புண்களே> படுக்கை புண்கள் எனப்படும் .

படுக்கை புண்கள்> அழுத்தப்புண்கள் எனவும் அழைக்கப்படும் ஏனென்றால் இவை தோல் மற்றும் தோல் சார்ந்த திசுக்கள் நீண்ட காலமாக அழுத்தத்திற்கு உள்ளவதால் உண்டாகின்றன .

<u>படுக்கைப்புண் ஏற்படுவதற்கான காரணங்கள் :</u>

<u>1..அழுத்தம்:-</u>

படுக்கை புண் உருவாவதற்கு முதன்மையான காரணம் அழுத்தம் ஆகும் ஒருவர் நீண்ட காலமாக சக்கர நாற்காளிலோ அல்லது கட்டிலிலோ இருக்கும் நிலையில்> அவரது உடல் எடையானது அமர்ந்திருக்கும் அல்லது படுத்திருக்கும் பாகத்தில் அழுத்தத்தை அதிகருக்கிறது.இதனால் இரத்த குழாய்களும் அழுத்தப்பட்டு ,திசுக்களுக்கு இரத்த ஓட்டம் தடைபடுகிறது .இதனால் பிராண வாயு மற்றும் சத்து பொருள்கள் கிடைக்காமல் திசுக்கள் இறக்கின்றன .

2.உராய்வு:-

தோலானது கடினமான மற்றும் சொரசொரப்பான பகுதியில் தொடர்ந்து இருக்கும் பொழுதும் மற்றும் இழுக்கப்படும் பொழுதும் உராய்வும் ஏற்பட்டு தோல் பாதிப்படைகிறது . படுக்கையில் இருக்கும் நோயாளிகளுக்கு தோல் உராய்வு பல நேரங்களில் நிகழ்கிறது

உராய்வு ஏற்பட காரணங்கள் :

- சுருக்கங்கள் உள்ள படுக்கை விரிப்பு
- சொரசொரப்பான கட்டுகள்
- படுக்கையில் தேவை இல்லாத பொருள்கள் இருத்தல் .
- படுக்கையில் மலம் கழிக்கும் சாதனம் அதாவது பெட் பான் முரையற்ற வகையில் கையாளுதல் .
- படுக்கையில் இருக்கும் நோயாளியையோ அல்லது படுக்கை விரிப்பையோ முறையற்ற வகையில் இழுத்தல் மற்றும் தள்ளுதல்.

3.எதிர் விசை

தோலானது ஒரு திசையிலும் அதன் நேர் உள்ள எலும்பு வேறு திசையிலும் நகரும் போது இது ஏற்படுகிறது .நோயாளி படுக்கையில் இறங்கி வரும் போதும்> படுக்கையை 30 டிகிரிக்கு மேல் உயர்த்தும் போதும் எது ஏற்படுகிறது. எது தோலை இழுத்து செல்லில் உள்ள உறையை கிழிக்கிறது. அகவே இரத்த குழாய்கள் சேதமடைகின்றன.

4.இறுக்கம் :

தோலானது வெளிப்பரப்புடன் இருக்கப்படும் போது தோல் சேதமடைகிறது. உதாரணமாக இறுக்கமான உடைகள் மற்றும் கட்டுக்கள் .

படுக்கை புண் ஏற்படுவதற்கான வாய்ப்பு நிலைகள் :

அசைவில்லாமல் படுக்கையில் இருக்கும் எல்லா நபர்களுக்கும் படுக்கை புண் ஏற்பட வாய்ப்புகள் உள்ளது ,மற்றும் சில காரணங்கள் படுக்கை புண் ஏற்படும் வாய்ப்பை அதிகரிக்கின்றன .அவை

- வயது அதிகமாதல் : ஒருவருடைய வயது அதிகமாகும் பொழுது அவருடைய தோல் மேலும் மெலிதாகிவிடுவதால் .சிதைவு ஏற்பட அதிக வாய்ப்பு ஏற்படுகிறது .
- வலி உணர்வு இல்லாமல் இருத்தல் : நரம்பு சம்மந்தப்பட்ட சில வியாதிகள் மற்றும் தண்டுவட நரம்பு பாதிப்பிற்கு உள்ளானவர்களுக்கு வலி உணர்வு மற்றும் தொடு உணர்வு இல்லாமல் இருப்பதால் படுக்கை புண் ஏற்படுகிறது
- உடல் எடை குறைவாக இருத்தல் : ஒல்லியான தேகம் உடையவர்களுக்கு தோலின் அடியில் உள்ள பஞ்சு போன்ற அமைப்பை கொடுக்கும் கொழுப்பு உறை மெலிதாக இருப்பதால் இவர்களுக்கு விரைவில் படுக்கை புண் ஏற்படுகிறது .
- சத்து குறைபாடு : புரத சத்து மற்றும் வைட்டமின் சத்து குறைவாக உள்ளவர்களுக்கு எளிதாக படுக்கை புண் ஏற்படுகிறது
- சிறுநீர் மற்றும் மலப்போக்கை கட்டுப்படுத்த முடியாதவர்கள் : சில மருத்துவ மற்றும் அறுவை சிகிச்சை காரணங்களால் சிறுநீர் மற்றும் மலப்போக்கை தானாக கட்டுபடுத்த முடியாத நிலை ஏற்படுகிறது .இது போன்ற பிரச்சனை உள்ள படுக்கை நோயாளிகளின் படுக்கை அடிக்கடி ஈரமாகி விடுவதால் ,தோல் உராய்வு மற்றும்

தோல் மென்மை தன்மை ஏற்பட்டு விரைவாக நோய் தொற்றும் மற்றும் படுக்கை புண்ணும் ஏற்படுகிறது .

- மற்றும் சில மருத்துவ காரணங்கள் : சர்க்கரை நோய் மற்றும் இரத்த குழாய் தொடர்பான பிரச்னை உள்ளவர்களுக்கு இரத்த ஓட்டம் குறைவாகி படுக்கை புண் ஏற்படுகிறது .
- புகைபிடித்தல் : புகைபிடித்தல் இரத்த ஓட்டத்தை குறைத்து பிராண வாயு மற்றும ஊட்டசத்தை குறைக்கிறது .
- மாறுபட்ட புலன் உணர்வு திறன் உள்ளவர்கள் : சில மருந்துகளாலும்> நோய்களாலும் மற்றும் தலையில் அடிபட்ட நபர்களுக்கும் மாறுபட்ட புலன் உணர்வு திறன் ஏற்படுகிறது .இந்த வகை நபர்கள் தானாக எதையும் செய்ய இயலாத நிலையில் இருப்பதாலும் சில நேரங்களில் கட்டுபடுத்த இயலாத வகையில் நோயாளி படுக்கையில் நகருவதால் உராய்வு ஏற்பட்டு படுக்கை புண் ஏற்படுகிறது .
- எலும்பு முறிவு : எலும்பு முறிவு அசையா நிலையை அதிகமாவதால் படுக்கை புண் ஏற்படுகிறது .
- உடல் பருமன் :
- போதை மருந்துகள் கொடுக்கப்பட்ட நபர்கள்
- பக்கவாத நோயாளிகள்
- உடலில் வீக்கம் உள்ளவர்கள்
- அறுவை சிகிச்சை செய்யப்பட்ட நபர்கள் .

<u>படுக்கை புண் ஏற்படும் முறை</u> :

தோலில் தொடர்ந்து அழுத்தம் ஏற்படும் பொழுது தோலின் கீழ் இருக்கும் இரத்த குழாய்களில் அழுத்தம் சராசரிக்கும் அதிகமாகி இரத்த குழாய் அடைப்பு அல்லது உடைப்பு ஏற்படுகிறது . இதனால் இரத்தம் திசுக்களுக்கு செல்வது தடைப்பட்டு திசுக்கள் இறந்து படுக்கை புண் உண்டாகிறது .

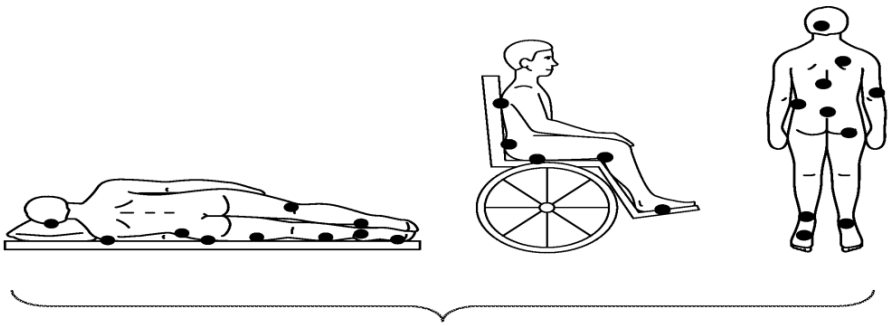
<u>உடலில் படுக்கை புண் ஏற்படும் இடங்கள்</u> :

உடலில் எந்த இடத்தில் அழுத்தம் அதிகமாகவும் மற்றும் எந்த இடத்தில் எலும்பு வெளிப்படையாகவும் தசை குறைவாக உள்ளதோ அந்த இடத்தில் படுக்கைப் புண் ஏற்படுகிறது.

படுக்கை நிலையைப் பொறுத்து படுக்கைபுண் வெவ்வேறு இடங்களில் ஏற்படுகிறது.

<u>அமர்ந்த நிலையில்</u> :

- ✓ பின்புற தலை
- ✓ தோள்பட்டை
- ✓ முதுகு
- ✓ அமரும் இடம்
- ✓ முழங்கால்களுக்குக் கீழ்
- ✓ குதிங்கால்



மல்லார்ந்த படுக்கை நிலையில்:

- ✓ பின்புறத் தலை
- ✓ தோள்பட்டை
- ✓ முழங்கை
- ✓ இடுப்புப்பகுதி
- ✓ புட்டம்
- ✓ முழங்கால்களுக்குக் கீழ்
- ✓ குதிங்கால் பகுதி

குப்புறப்படுத்த நிலையில்:

- ✓ காது கன்னம்
- ✓ மார்புப்பகுதி(பெண்களுக்கு)
- ✓ ஆணுறுப்பு(ஆண்களுக்கு)
- ✓ முழங்கால்கள்
- ✓ கால் விரல்கள்

ஒருபுறமாக சாய்ந்த படுக்கை நிலையில்:

- ✓ காது கன்னம்
- ✓ ஒருபக்க தோள்பட்டை
- ✓ விலா எலும்புப்பகுதி
- ✓ ஒருபக்க இடுப்பு எலும்பு பகுதி
- ✓ முழங்காலின் வெளிப்புறம்
- ✓ கணுக்காலின் வெளிப்புறம்

படுக்கைப்புண் ஏற்படுவதற்கான கால அவகாசம்:

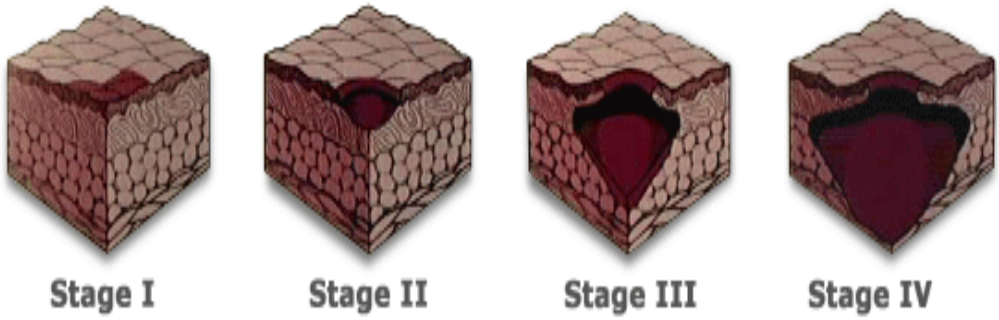
சாதரணமாக படுக்கைப்புண் ஒரு நபருக்கு விரைவில் ஏற்படுகிறது.எப்போது வாய்ப்புகள் அதிகமாக உள்ளதோ அப்போது இன்னும் விரைவாக ஏற்படுகிறது.ஒரு நபர் அசையாமல் இருக்கும் போது 20 நிமிடங்களுக்குள்ளாகவே படுக்கைப்புண் ஏற்படுகிறது.இது சில நபர்களுக்கு 12 மணி நேரத்திற்குள் நிகழ்கிறது.

படுக்கைப்புண்ணின் நிலைகள்:

நிலை 1:

இது ஆரம்ப நிலை ஆகும்.இந்த நிலையில்

- தோல் உரிதல் கிடையாது
- வெண்மையான தோல் உடைய நபர்களுக்கு தோல் சிவப்பாக மாறும்.
- கருப்பான தோல் உடைய நபர்களுக்கு இன்னும் கறுப்பாகும்.
- புண்ணுள்ள இடம் மென்மையாகவும் வலியுடனும்,மித வெப்பம் அல்லது குளிர்ந்த நிலையிலும் இருக்கும்.



நிலை 2:

- வெளிப்புற தோல் மற்றும் உட்புற தோல் பாதிக்கப்பட்டு இருக்கும்.
- அடுத்தது அந்த பகுதி சிவப்பு அல்லது இளஞ்சிவப்பு நிறத்துடன் குழிந்து காணப்படும்.
- நீர் நிறைந்த கொப்புளங்களுடன் அல்லது கொப்புளங்கள் வெடித்த நிலையிலும் இருக்கலாம்.

நிலை 3:

- இந்த நிலையில் புண் இன்னும் ஆழமாகிறது.
- இந்த நிலையில் வெளிப்புறத் தோல் மற்றும் உட்புறத் தோல் முற்றிலும் சேதப்படுவதால் கொழுப்பு தோலை காண முடியும் .
- இது மஞ்சள் நிறத்துடன் காணப்படும்.இந்த நிலையில் இறந்த திசுக்கள் இருப்பதால் புண் கருப்பு நிறத்துடன் காணப்படும் .

நிலை 4:

- இந்த நிலையில் அதிக அளவு திசு இழப்பு ஏற்படும்.
- இந்த நிலையில் தோலின் மூன்று உறைகளும் சேதப்படுவதால் அதன் கீழ் உள்ள தசைகள்> எலும்பு மற்றும் நார்க்கற்றை இவற்றை கண்களால் பார்க்கமுடியும்.
- புண் அழுகிய நிலையிலும் மற்றும் இறந்த திசுக்கள் இருப்பதால் கருப்பாகவும் காணப்படும்.

படுக்கைப்புண்ணை தடுக்கும் வழி முறைகள்:

படுக்கைப்புண் ஏற்படுவதற்கான வாய்ப்புகளை கண்டறிதலும் மற்றும் அடிக்கடி படுக்கைப்புண் வரக்கூடிய இடங்களை பரிசோதித்தல் மூலமாக படுக்கைப்புண் வருவதை தொடக்கத்திலே கண்டறிந்து தடுக்கலாம்.

வழிமுறைகள்:

- தோலின் மேற்புற பாதுகாப்பு
- முதுகுப்பராமரிப்பு
- சௌகரியமான படுக்கை நிலை ,உட்காரும் நிலை மற்றும் சௌகரியமான படுக்கைப் பொருட்கள்.
- படுக்கை அமைத்தல்
- நீர்> ஊட்டச்சத்து மற்றும் உடல் உபாதைகள்.

தோலின் மேற்புற பாதுகாப்பு:

- ✓ படுக்கையில் இருக்கும் நோயாளிகளின் தோலினை அடிக்கடி பரிசோதனை செய்ய வேண்டும்
- ✓ தோலினை சுத்தமாகவும் மற்றும் உலர்ந்த நிலையிலும் வைக்க வேண்டும்
- ✓ எலும்பு மேலோட்டமாக தெரியும் இடங்களான தோள்பட்டை,புட்டம் மற்றும் குதிங்கால் பகுதியில் சிறப்பு கவனம் எடுத்து பாதுகாக்க வேண்டும்.
- ✓ தினமும் உடல் முழுவதையும் குளிப்பதன் மூலமாக சுத்தம் செய்வதோடு இடையிடையே தேவை ஏற்படும்போதும் துடைக்க வேண்டும்.
- ✓ உதாரணமாக அதிகமாக வியர்க்கும் போதும் சிறுநீர் மற்றும் மலம் கழிக்கும் போதும் உடல் சூடு அதிகமாக இருக்கும் போதும் துடைத்தல் அவசியம்.
- ✓ அடிக்கடி சோப்பு போட்டு உடம்பைத் துடைப்பதை தவிர்க்க வேண்டும்.
- ✓ ஏனெனில் சோப்பு அதன் உப்புத் தன்மையினால் தோலில் உள்ள நன்மை தரும் நுண்ணுயிர்களை அழிப்பதோடு தோலை அதிகமாக வறட்சியடைய செய்கிறது.
- ✓ இதனால் நோய்த் தொற்று மற்றும் படுக்கை புண் ஏற்படும் வாய்ப்பு அதிகமாகிறது.
- ✓ ஒவ்வொரு முறையும் தோலை சுத்தம் செய்யும் போது முதலில் இளஞ்சூடு நீர் வைத்து துடைத்து பின்பு ஈரப்பதத்தை துணி மூலம் ஒத்தி எடுப்பதன் மூலமாக உலர வைத்து அதன் பின் வழவழப்பு தன்மைக்காகவும் மற்றும் வறட்சியை தடுக்கவும் லோஷன் அல்லது எண்ணெய் பயன்படுத்த வேண்டும்.

முதுகுப் பாதுகாப்பு:

முதுகுப்பாதுகாப்பு எனபது முதுகைச் சுத்தம் செய்து படுக்கையில் இருக்கும் நோயாளிகளுக்கு இரண்டு மணிக்கு ஒரு முறை முதுகுப் பாதுகாப்பு அவசியமானது.தினமும் குளிக்க வைப்பதும் மற்றும் முதுகுப் பாதுகாப்பும் தொலைப்பாதுகாக்க உதவுகிறது.முதுகுப்பாதுகாப்பின் போது செய்யப்படும் மசாஜ் ரத்த ஓட்டத்தை அதிகரித்து படுக்கைப் புண் வருவதைத் தடுக்கிறது.இந்த மசாஜ் முறை அனைவருக்கும் பொருந்தாது.எடுத்துக்காட்டாக,தண்டுவட எலும்பு முறிவு,முதுகுப்பகுதியில் அறுவை சிகிச்சை நடத்தப்பட்ட நபர்களுக்கு செய்யப்படக் கூடாது.

தேவையான பொருட்கள்:

- ✓ நீர் வைக்க பாத்திரம்,
- ✓ குளியலுக்காகப்பயன்படுத்தும் போர்வை,
- ✓ துண்டு,
- ✓ துடைக்கும் துணி
- ✓ ,ரப்பர் விரிப்பு,
- ✓ லோஷன் அல்லது வாசலின் அல்லது எண்ணெய்.

செய்முறை:

- ➢ தேவையான பொருட்களை படுக்கைக்குப்பக்கத்தில் வைத்துக்கொள்ள வேண்டும்.
- ➢ நபரை ஒரு பக்கமாகத் திருப்பி படுக்கவைக்க வேண்டும்.
- ➢ படுக்கை நனையாமல் இருக்க ரப்பர் விரிப்பைப் பயன்படுத்த வேண்டும்.
- ➢ கைகளைக் கழுவிக்கொள்ள வேண்டும்.
- ➢ இப்பொழுது நபரின் முதுகுப்புற ஆடையை அகற்ற வேண்டும்.
- ➢ தோலின் தன்மையையும் நிலையையும் கவனிக்க வேண்டும்.

- பின்பு துடைக்கும் துணியை கையில் சுற்றிக்கொண்டு அதை நீரில் நனைத்து அதிக நீரை பிழிந்து அகற்றி அந்த துணியின் மூலம் நபரின் முதுகை,கழுத்துத் தோள்ப்பட்டையில் தொடங்கி கீழ்ப்புறமாக இடுப்பு மற்றும் புட்டம் வரை துடைக்க வேண்டும்.
- ஒவ்வொருமுறையும் நீழ்வாக்காகத் துடைக்க வேண்டும்.
- தேவையிருந்தால் சோப்பை சுற்று வட்ட முறையில் தேய்த்து நுரை உண்டாக்கி நீர்வைத்து சோப்பை அகற்ற வேண்டும்.
- மென்மையான துணி வைத்து ஒற்றி எடுப்பதன் மூலம் முதுகை உலர வைக்க வேண்டும்.
- பின்பு எண்ணெய் அல்லது வாசலின் போன்ற லோஷன் பயன்படுத்தி நபரின் முதுகு> புட்டம் மற்றும் அழுத்தம் அதிகமாக உள்ள இடங்களில் மசாஜ் செய்ய வேண்டும்.

மசாஜ் செய்யும் முறைகள்:

மசாஜ் செய்ய பராமரிப்பு செய்பவர் இரண்டு கைகளையும் பயன்படுத்த வேண்டும்.

- முதலாவது பராமரிப்பு செய்பவர் தங்களது உள்ளங்கை மற்றும் விரல் நுனியை பயன்படுத்தி புட்டம் மற்றும் இடுப்பு தொடங்கி நீளவாக்கில் மேற்புறமாக தோள்பட்டை நோக்கி கழுத்து வரை அழுத்தித் தேத்து பின்பு வெளிப்புறமாக கீழே கொண்டுவர வேண்டும்.
- இரண்டாவது கட்டை விரல் நுனியை வைத்து சுற்று முறையில் தேத்து புட்டம் மற்றும் இடுப்பு தொடங்கி கழுத்து வரை சென்று மீண்டும் கீழே புட்டம் வரை செய்துகொண்டே வர வேண்டும்.
- மூன்றாவது விரல் நுனிகளைப்பயன்படுத்தி முதுகுத் தசைகளை நன்றாக ஒவ்வொரு பகுதியாக பிடித்துவிட வேண்டும்.இதுவும் மேற்கூறப்பட்ட மசாஜ் முறையில் கேழ் தொடங்கி மேல் சென்று பின்பு மீண்டும் கேழே வர வேண்டும்.
- நான்காவது இரண்டு கைகளையும் குவித்து வைத்துக்கொண்டு மென்மையாக முதுகில் கையை மாற்று முறையில் தட்ட வேண்டும் முதுகின் அனைத்துப்பகுதியிலும் இவ்வாறு செய்யப்பட வேண்டும்.
- கடைசியாக முதலில் செய்யப்பட்ட அழுத்தம் கொடுத்து தேய்க்கும் முறையை செய்ய வேண்டும்.

ஒவ்வொரு செய்கையையும் ஆறு முறை செய்ய வேண்டும். குறைந்தது மசாஜ் மூன்று முதல் நான்கு நிமிடங்களுக்கு செய்ய வேண்டும்.

பின் கவனிப்பு:

முதுகுக்கவனிப்பு மற்றும் மசாஜ் செய்யப்பட பிறகு நோயாளியை சௌகரியமாக படுக்க வைக்க வேண்டும். தேவையில்லாப் பொருட்களை அப்புறப்படுத்த வேண்டும்.

படுக்கை நிலை மற்றும் சௌகரியப்படுக்கை சாதனங்கள்:

- படுத்திருக்கும் நிலையை மாற்றி அமைப்பது,படுக்கையில் இருக்கும் நோயாளிகளின் அழுத்தத்தை குறைக்க அடிக்கடி படுக்கை நிலை மாற்றப்பட வேண்டும்.
- குறைந்தது இரண்டு மணி நேரத்திற்கு ஒருமுறை படுக்கை நிலையை மாற்றி அமைக்க வேண்டும்.
- இரவு நேரங்களில் படுக்கை முறை மாற்றத்தை தவறாது மாற்றி அமைக்க அட்டவணை முறையை பயன்படுத்தலாம்.

அசையா நிலையில் இருக்கும் நோயாளியை படுக்கையின் மேற்பரப்பிற்கு கொண்டுவரும் முறை:

- அசையா நிலையில் படுக்கையில் இருக்கும் நோயாளி பல காரணங்களால் படுக்கையின் கால் பகுதிக்கு அல்லது படுக்கையின் இறங்கிய நிலையில் காணப்படும் போது அவரை மேலே உயர்த்தி படுக்க வைப்பது அவசியமான ஒன்று.
- அதற்காக ஒரு போர்வையை நபரின் அடிப்பகுதியில் விரிக்க வேண்டும்.அது கழுத்து தொடங்கி முழங்கால் வரை இருக்க வேண்டும்.
- இரண்டு அல்லது நான்கு நபர்கள் இரண்டு பக்கமாக நின்று போர்வையின் அதிகப்பகுதியை தங்கள் கைகளில் சுருட்டிப் பிடித்துக்கொள்ள வேண்டும் கால்களை அகலமாக வைத்துக்கொண்டு எந்த திசையில் நோயாளியை நகர்த்த வேண்டுமோ அதே திசையில் திரும்பிய நிலையில் அனைவரும் ஒன்றாக போர்வையை தூக்கி மேலே நகர்த்த வேண்டும்.
- பின்பு நேரான நிலையில் நபரைக் கிடைத்த வேண்டும்.இந்த முறையில் நபரை நகர்த்துவது உராய்வைக் குறைக்கும்.

உட்காரும் நிலை மற்றும் அதன் சௌகரிய சாதனங்களும்:

- படுக்கையை 40 டிகிரி முதல் 60 டிகிரி வரை உயர்த்தி அமைக்க வேண்டும்.இதற்கு தலையணை மற்றும் இதற்காக வடிவமைக்கப்பட்ட பேக் ரெஸ்ட் எனப்படும் சாதனத்தை உபயோகிக்க வேண்டும்.
- படுக்கையை உயர்த்தி அமைக்கும் கட்டில் இருந்தால் அதைப் பயன்படுத்தலாம் அல்லது நாற்காலியை உபயோகப்படுத்தலாம்.
- தலையின் பின்புறத்தில் சிறிய தலையணையை வைக்க வேண்டும்.
- இரண்டு கைகளின் கீழே முழங்கைக்குக் கீழே இரண்டு தலையணைகளைப் பயன்படுத்தவும்.
- முதுகுக்குப் பின்னல் ஒரு தலையணை வைக்க வேண்டும்.
- காற்று அடைத்த இருக்கை அல்லது குஷனை புட்டம் அல்லது உட்காரும் இடத்திற்கு கீழே வைக்க வேண்டும்.

- முழங்காலுக்கு அடியில் ஒரு சுற்றப்பட்ட போர்வை அல்லது சிறிய தலையணை வைக்கவேண்டும்.
- தலையை தானாக நேரே வைக்க முடியாதவர்களுக்கு ஒரு சிறிய தலையணையை தாடைக்குக் கீழே வைக்க வேண்டும்.
- பாதங்களை நேராக நிறுத்த தலையணை அல்லது பாத அட்டைகளையும் சிறிய மணல் மூட்டைகளையும் பயன்படுத்தலாம்.

மல்லார்ந்த படுக்கை நிலை மற்றும் அதன் சௌகரிய சாதனைகளும்:

- மல்லார்ந்த படுக்கை நிலையில் நோயாளி தங்களது தலை மட்டும் முதுகை பயன்படுத்திய நிலையில் படுத்திருப்பார்.
- தலை அதிகமாக உயர்ந்த நிலையில் இல்லாமல் பார்த்துக்கொள்ள வேண்டும்,தலையின் கீழே சிறிய தலையணை வைக்க வேண்டும்.
- இரண்டு தோள்ப்பட்டை கீழும் இரண்டு தலையணைகள் வைக்க வேண்டும்.
- இடுப்புப் பகுதிக்குக் கீழே ஒரு சுருட்டிய போர்வை அல்லது தலையணையை வைக்க வேண்டும்.
- கால்கள் வெளிப்புறமாக மடங்குவதைத் தடுக்க இரண்டு தொடைகளுக்கும் வெளிப்புறமாக தலையணை அல்லது சுற்றப்பட்ட போர்வை அல்லது சிறிய மணல் மூட்டைகளை பயன்படுத்த வேண்டும்.
- கணுக்காலுக்குக் கீழே ஒரு சிறிய தலையணையை வைத்து குதிங்காலை உயர்த்தி அமைக்க வேண்டும்.

குப்புறப்படுத்த நிலை மற்றும் அதன் சௌகரிய சாதனங்களும்:

- மல்லார்ந்த நிலையில் இருக்கும் நபரை குப்புறப்படுத்த நிலைக்கு மாற்ற முதலில் அவரை ஒருபுறமாக திருப்பி படுக்கையின் விளிம்பிற்கு வரவழைத்து குப்புரப்படுக்கும் நிலைகுதிருப்ப வேண்டும்.
- நபரின் தலையை ஒருபக்கமாகத் திருப்பி படுக்கவைக்க வேண்டும்.
- இது மூச்சு விட உதவுகிறது.
- காது மற்றும் கன்னத்திற்குக் கீழ் ஒரு தலையணையை வைக்க வேண்டும்.
- பெண்களுக்கு மார்புப் பகுதிக்குக் கீழே ஒரு தலையணை வைக்க வேண்டும்.
- ஆண்களுக்கு ஆணுறுப்புக் கீழே அல்லது வயிற்றுக்குக் கீழே ஒரு தலையணை வைக்க வேண்டும்.
- இரண்டு கைகளையும் மடக்கிய அல்லது நீட்டிய நிலையில் வைக்கும் பொது அதன் கீழ் தலையணை வைக்க வேண்டும்.
- முழங்கால்களுக்குக் கீழே தலையணை வைக்க வேண்டும்.
- முன் கணுக்காலின் கீழ் தலையணை வைத்து கால்விரல்களை உயர்த்தி அமைக்க வேண்டும்.

ஒருபுறமாக சாய்ந்து படுத்தலும் அதன் சௌகரிய சாதனங்களும்:

- மல்லார்ந்த நிலையிலோ அல்லது குப்புற இருக்கும் நிலையிலோ படுத்திருப்பவரை ஒரு புறமாக திருப்பி படுக்கை நிலையை அமைக்க வேண்டும்.
- ஒரு போதும் உறைவாய் ஏற்படுத்தும் வகையில் நபரை இழுக்க கூடாது.
- மல்லார்ந்த நிலையில் இருபவரை ஒரு புறமாக சாயிந்த நிலைக்குமாற்ற முதலில் அவரது ஒரு பக்க முழங்காலை மடக்கி காலை திருப்ப போகும் பக்கமாக வைக்க வேண்டும்.
- பின்பு பராமரிப்பு செய்பவர் தங்களது ஒரு கையை தோள்ப்பட்டையிலும் அடுத்த கையை தொடையிலும் வைத்து மெதுவாக நபரை திருப்ப வேண்டும். இதை போர்வை பயன்படுத்தியும் செய்யலாம்.
- காது மற்றும் கன்னத்திற்கு கீழே ஒரு தைலையனையை வைக்க வேண்டும்
- படுகையோடு இணைந்திருக்கும் தோள் பட்டை> விலா எலும்பு> ஒரு பக்க இடுப்பு மற்றும் வெளிப்புற முழங்கால்கள் மற்றும் வெளிப்புற கணுக்களில் தலையணையை வைக்க வேண்டும்.

- மேலும் இரண்டு கால்களுக்கு இடையிலும் மற்றும் இரண்டு கைகளுக்கு இடையிலும் மற்றும் முதுகுக்கு பின் புறமாகவும் தலையணையை வைக்கலாம்.

<u>படுகையும் அதன் விரிப்பும்</u>:

- படுகையும் அதன் விரிப்பும் எப்பொழும் சௌகரியமாக இருக்க வேண்டும்
- படுக்கை விரிப்புகள் ஈரமானதாக இருந்தால் அதை உடனடியாக மாற்ற பட வேண்டும். ஏன்என்றால் அது நோய் தொற்று மற்றும் படுக்கை புண்களை உண்டாக்கும்.
- உராய்வை தடுக்க சுருக்கம் இல்லாத படுக்கை விரிப்புகளை இட வேண்டும், சுருக்கம் ஏற்படாமல் இருக்க அதை நன்றாக இழுத்து மெத்தையின் கீழ் சொருக வேண்டும்.
- ஒவ்வொரு முறையும் படுக்கை நிலைமையை மாற்றி அமைக்கும் போதும் மற்றும் உயர்த்தும் போதும்> சுருக்கம் ஏற்படாமல் பார்க்க வேண்டும்.
- படுகையில் தேவை இல்லாத பொருட்கள்> உதரணமாக ஊசி> உணவு துகள்கள்> மருந்து காகிதங்கள் இருந்தால் உடனடியாக அகற்ற பட வேண்டும். ஏன்என்றால் இவை நபரின் உடலை காயப்படுத்துவதோடு உராய்வை அதிகமாகி படுக்கை புன்னை உருவாகுகிறது.

- நோயாளியின் உடம்பிலிருக்கும் அணைத்து குழாய் சாதனங்கள் உதரணமாக உணவு செலுத்தப்படும் குழாய்> சிறுநீர் வெளியேரும் குழாய் மற்றும் பிராண வாய்வு செலுத்தப்படும் குழாய்கள் எப்பொழும் நோயாளியின் மேற்பரப்பில் இருக்குமாறு பார்த்து கொள்ள வேண்டும்.
- நபருக்கு பொருத்தமான உடைகளையே உடுத்த வேண்டும்

சிறப்பு படுக்கைகள்:

சாதாரண படுக்கைகள் அழுத்தத்தை அதிக படுத்துகின்றது.சிறப்புப் படுக்கைகள் அழுத்தத்தையும் உராய்வையும் குறைக்கின்றன.

எடுத்துக்காட்டு நீர் மற்றும் காற்றுப்படுக்கைகள்

- நீர்ப்படுக்கையானது அதன் சிறப்பான தனித்தன்மையால் அலையை உருவாக்கியும் மற்றும் வெப்பத்தை குறைத்தும் படுக்கைப்புண் வராமல் காக்கிறது.
- காற்றுப்படுக்கையில் தொடர்ந்து காற்றானது அலை அடிப்படையில் நிரம்பி ஏற்ற இறக்கத்தை கொடுத்துக்கொண்டே இருப்பதால் உடல் உறுப்புகளை அசைய வைக்கிறது.

நீர்ச் சத்து:

- நீர்ச் சத்தை சம நிலையில் வைத்திருப்பது படுக்கைப்புண் வருவதை தடுக்க உதவுகிறது.
- படுக்கையில் இருப்பவர்கள் குறைந்தது 2-3 லிட்டர் நீர் பருகுவதன் மூலம் நீர்ச்சத்தை சமன் செய்யலாம்.
- பராமரிப்பு செய்பவர் ,படுக்கையில் இருக்கும் நோயாளியின் நீர்ச் சத்து குறைப்பாட்டை கண்டறிந்து அதை தடுக்க வேண்டும்.
- நீர்ச்சத்து குறைபாட்டின் அறிகுறிகள்:
- தோல் வறண்டு காணப்படுதல்> கண் குழிவிழுந்து இருத்தல்> சிறுநீர் குறைவாக உருவாதல்> வாய் வறண்டு இருத்தல் ஆகியன.

ஊட்டச்சத்து:

ஊட்டச்சத்து குறைபாடு ,படுக்கையில் இருக்கும் நபர்களுக்கு விரைவில் ஏற்படுகிறது.அதை தடுக்க புரதம் மாவுச்சத்து மற்றும் வைட்டமின் சி> துத்தநாகம் நிறைந்த உணவுகளை அதிக அளவில் கொடுக்க வேண்டும்.ஊட்டச்சத்து குறைப்பாட்டை தடுப்பதன் மூலம் படுக்கை புண் ஏற்படுவதற்கான வாய்ப்புகளை குறைக்கலாம்.

சிறுநீர் மற்றும் மலம் வெளியேற்றம்:

ஒவ்வொரு முறையும் சிறுநீர் மற்றும் மலம் கழித்த பின்பு இடுப்பு பகுதியும் மலவாய் பகுதியை சுத்தம் செய்வதோடு படுக்கை விரிப்பு நனைந்து இருந்தால் அதையும் மாற்ற வேண்டும்.

டயபர் மற்றும் நாப்கின் உபயோகிக்கும் போது அரிப்பு மற்றும் தோல் புண்ணாகிறது. அதை உரிய முறையில் துடைத்து சுத்தமாக வைக்க வேண்டும். முடிந்த வரை படுக்கையில் மலம் கழிக்கும் சாதனம் பயன்படுத்தப்பட வேண்டும். அதை வைக்கும் போது நோயாளியை ஒரு புறமாக திருப்பியோ அல்லது தூக்கியோ பின்பு மெதுவாக வைக்க வேண்டும். பெட் பேனை வேகமாக இழுத்தல் மற்றும் தள்ளுதல் படுக்கைப்புண் மற்றும் காயங்களை ஏற்படுத்தும்.

முடிவுரை:

ஒருமுறை படுக்கைப்புண் ஏற்பட்டால் அதை குணப்படுத்துவது மிகவும் கடினமான ஒன்றாகும்.படுக்கைப்புண் வராமல் தடுப்பது குணப்படுத்துவதை விட எளிதானதாகும். ஆகவே படுக்கைப்புண் தடுப்பு வழிமுறைகளை கடைபிடித்து அதனை தடுப்போம்.

APPENDIX V

From

Ms.I.Mesiya Femina,
M.Sc(N) II year Student,
RASS Academy College of Nursing,
Poovanthi, Sivagangai District.

To

The Managing Director,
NeethiArasu Hospital,
Anna Nagar,
Madurai - 20

Respected Sir,

Sub: Permission to collect data among the caregivers-Reg

I am Ms.I.Mesiya Femina, doing M.Sc(Nursing) in RASS Academy College of Nursing, Poovanthi, Sivagangai District, affiliated to the Tamilnadu Dr.MGR.Medical University, Chennai. As part of my curriculum, I am conducting a research study on the topic:

"A study to assess the effectiveness of Video assisted teaching programme on knowledge regarding Prevention of pressure sore among caregivers of Immobilized patients in selected hospitals in Madurai District"

The purpose of this study is to knowledge the caregivers and makes them to understand the ways of preventing pressure sore for their patients who are bedridden in the hospital. I request you to grant permission to undergo data collection in your esteemed hospital.

Thanking you

Yours Faithfully,
I. Mesiya

forwarded.

PRINCIPAL
RASS ACADEMY COLLEGE
OF NURSING
POOVANTHI - 630 311

V. NEETHI ARASU
NEURO HOSPITAL
29A, Sivagangai Road
MADURAI - 20
Phone: 2585466

APPENDIX VI

COPIES OF CERTIFICATION OF CONTENT VALIDITY

This is to certify that have perused the research proposal submitted by Miss.Mesiya Femina, that "Effectiveness of video assisted teaching programme on knowledge regarding prevention of pressure sore among care givers of immobilized patients in selected hospitals, at Madurai District". I found that methodology and instruments are appropriate.

SIGNATURE

APPENDIX VII

LIST OF EXPERTS CONSULTED FOR CONTENT VALIDITY

1. Dr.Prof.Mrs.S.RAJINA RANI, M.Sc (N),Ph.D,

Principal,

RASS Academy College of Nursing,

Poovanthi, Sivagangai Dist-630611.

2. Prof.Mrs.H.UMMUL HAPIPA, M.Sc (N).,

HOD, Department of Medical Surgical Nursing,

RASS Academy College of Nursing,

Poovanthi, Sivagangai Dist

3.Dr.NEETHI ARASU, MD.,

Senior Consultant ,

Neethi Arasu Neurological Hospital ,

Madurai.

4.Dr.Varadharajan, M.Sc.,M.Phil.,M.Ed.,Ph.D(Edn).,

Professor of Statistics

RASS Academy College of Nursing,

Poovanthi, Sivagangai Dist

5.Mrs.M.Visalakshi, M.Sc(N).,

Reader

RASS Academy College of Nursing,

Poovanthi, Sivagangai Dist

6.Mrs.M.Kavitha, M.Sc(N).,

Asso.Professor

RASS Academy College of Nursing,

Poovanthi, Sivagangai Dist

7.Mrs.Kavitha, M.Sc(N).,

HOD of Medical Surgical Nursing

Madurai Apollo College of Nursing,

Eliyarpathi, Madurai.

8.Miss.N.Anitha, M.Sc(N).,

Asso.Professor

Madurai Apollo College of Nursing,

Eliyarpathi, Madurai.

APPENDIX VIII

PHOTOGRAPHICAL EVIDANCE OF DATA COLLECTION